

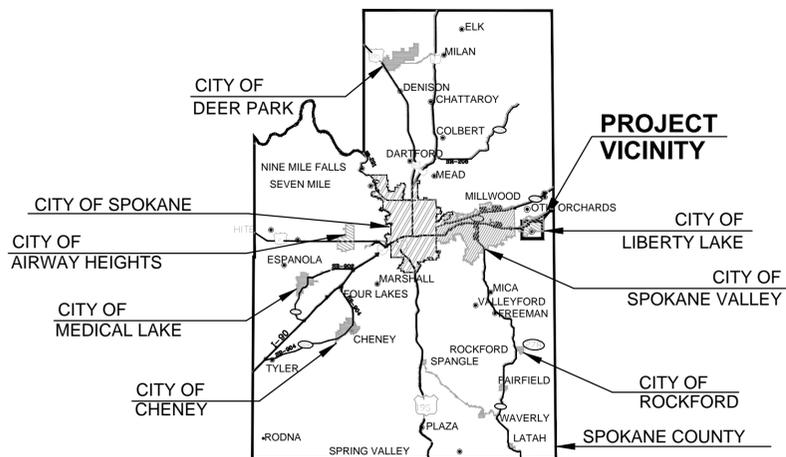
22710 E. COUNTRY VISTA DR.  
LIBERTY LAKE, WA 99019  
(509) 755-6700

**CITY COUNCIL MEMBERS**

MAYOR: STEVE PETERSON  
COUNCIL MEMBERS: CRIS KAMINSKAS, DAN DUNNE,  
HUGH SEVERS, KEITH KOPELSON,  
ROBERT MOORE, ODIN LANGFORD, SHANE BRICKNER

**CITY ENGINEER**

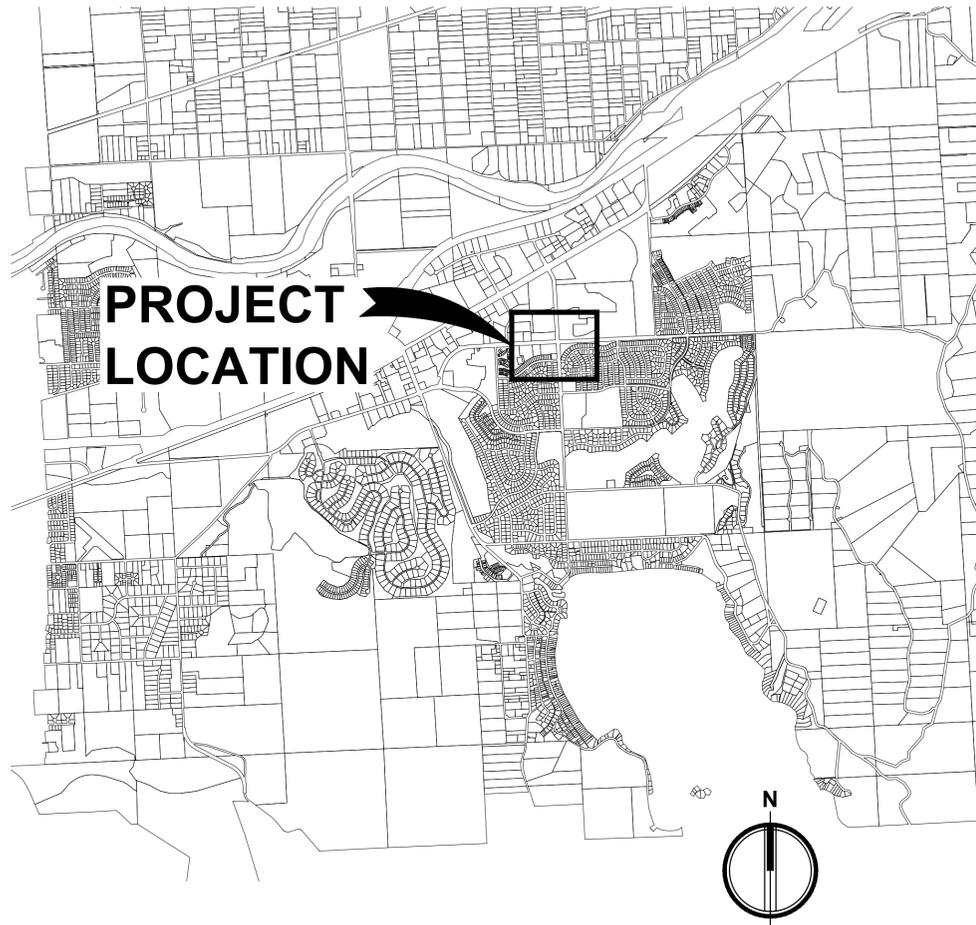
PROJECT ENGINEER: ANDREW STAPLES, P.E.



# CONTRACT PLANS

## SEC. 10, 11, 14 & 15 T26N, R42E, W.M.

### CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON



GENERAL	
Sheet Number	Sheet Title
G0.1	COVER
G0.2	VICINITY MAP
G0.3	GENERAL NOTES & INDEX
DEMO & TESC	
Sheet Number	Sheet Title
C1.1	MISSION AVE DEMOLITION & TESC
C1.2	MOLTER RD DEMOLITION & TESC
C1.3	TESC NOTES & DETAILS
LAYOUT	
Sheet Number	Sheet Title
C2.1	MISSION AVE LAYOUT
C2.2	MOLTER RD LAYOUT
C2.3	ROUNDAABOUT DRAINAGE
GRADING	
Sheet Number	Sheet Title
C3.1	MISSION AVE GRADING
C3.2	MOLTER RD GRADING
C3.3	ROUNDAABOUT PROFILES
TRAFFIC CONTROL	
Sheet Number	Sheet Title
C4.1	TRAFFIC CONTROL - INDEX
C4.2	TRAFFIC CONTROL
CIVIL DETAILS	
Sheet Number	Sheet Title
C5.1	DETAILS
C5.2	DETAILS
C5.3	DETAILS
C5.4	DETAILS
PLANTING	
Sheet Number	Sheet Title
L1.1	MISSION AVE PLANTING
L1.2	MOLTER RD PLANTING
L1.3	PLANTING SCHED, NOTES & DETAILS
IRRIGATION	
Sheet Number	Sheet Title
L2.1	MISSION AVE IRRIGATION
L2.2	MOLTER RD IRRIGATION
L2.3	IRRIGATION SCHED & NOTES
PLANTING/IRR DETAILS	
Sheet Number	Sheet Title
L3.1	PLANTING DETAILS
L3.2	IRRIGATION DETAILS
L3.3	IRRIGATION DETAILS
ELECTRICAL	
Sheet Number	Sheet Title
E1.1	MISSION AVE ELECTRICAL
E1.2	MOLTER RD ELECTRICAL
E1.3	ELECTRICAL DETAILS

FOR CONSTRUCTION OF:  
**MISSION AVE. AND MOLTER RD. ROUNDAABOUT**



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Project Title:

**MISSION AVE &  
MOLTER RD  
ROUNDABOUT**

Client:

**CITY OF LIBERTY LAKE**

22710 E. COUNTRY VISTA DRIVE  
LIBERTY LAKE, WASHINGTON 99019  
(509) 755-6700  
ANDREW STAPLES, PE

Job No.

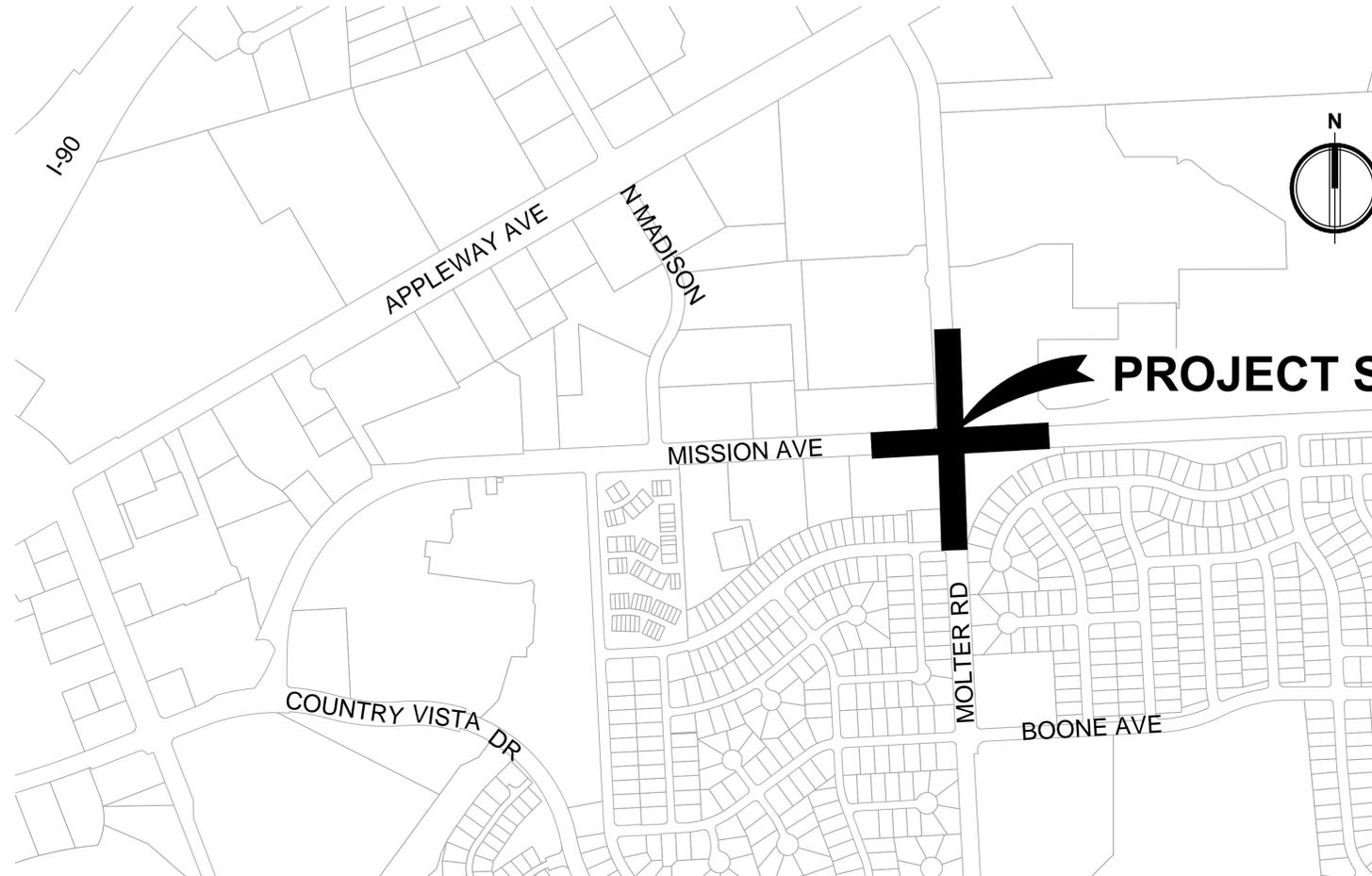
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Issue Set & Date:

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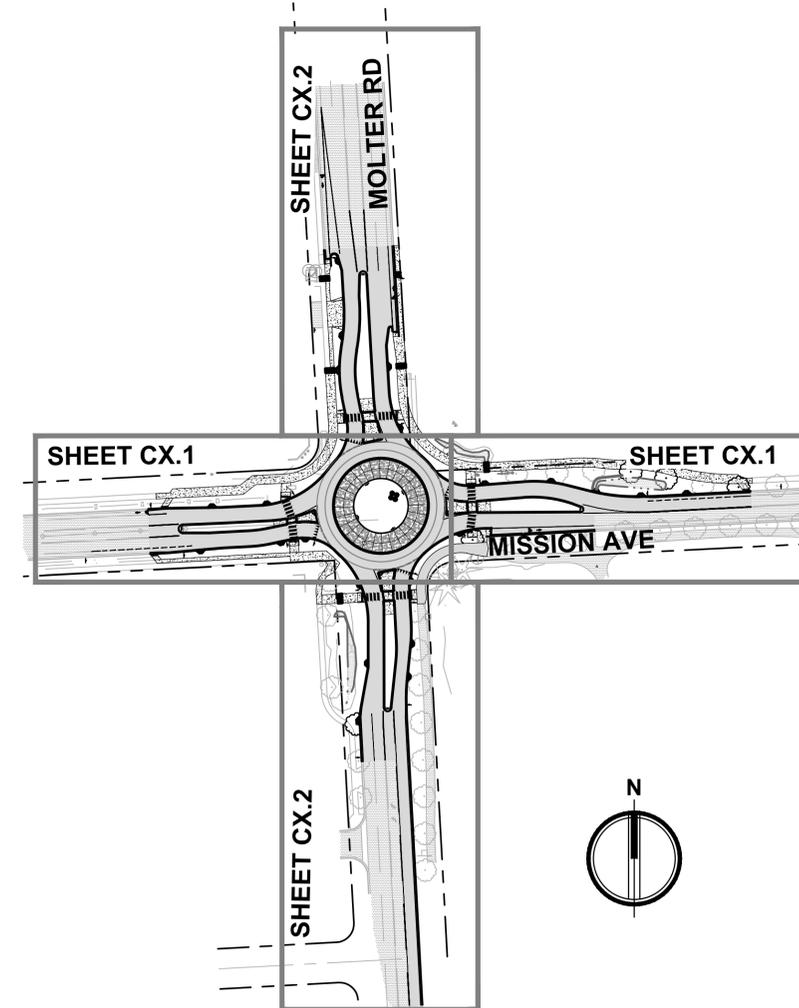
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**VICINITY MAP**

N.T.S.



**PROJECT SITE**

SCALE 1" = 100'

△	
△	
△	
△	
△	
Revisions:	

Sheet Title:

**VICINITY MAP**

Designed by: JAM    Drawn by: JAM    Checked by: EMF

Sheet No.

**G0.2**



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### OWNER

CITY OF LIBERTY LAKE  
22710 E. COUNTRY VISTA DR.  
LIBERTY LAKE, WA 99019  
CONTRACT: ANDREW STAPLES, PE  
PH: (509) 755-6700

### TRAFFIC ENGINEER

MORRISON-MAIERLE INC.  
316 WEST BOONE  
SPOKANE, WA 99201  
PH. (509) 315-8505  
CONTACT: BILL WHITE

### SURVEYOR

AHBL INC  
827 WEST FIRST AVENUE  
SPOKANE, WA 99201  
PH. (509) 252-5019  
FAX (509) 315-8862  
CONTACT: JOHN BECKER, PLS

### VERTICAL DATUM

NAVD 88  
WSDOT BENCHMARK 2314  
ELEV:2070.16

### HORIZONTAL CONTROL

NAD 83/91  
WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE  
WSDOT HORIZONTAL CONTROL  
HOLDING WSDOT MONUMENT NUMBERS 2313 AND 2314.

POINT NO. 2313  
N=264799.959  
E=2552860.462  
BRASS DISK ON SOUTH SIDE OF APPLEWAY/I-90 INTERCHANGE

POINT NO. 2314  
N=266437.823  
E=2557169.941  
BRASS DISK ON SOUTH SIDE OF APPLEWAY AVE, 1260± SW OF INTERSECTION WITH LIBERTY LAKE RD

### SITE TBM

POINT NO. 113 - NAIL AND WASHER  
N: 267249.3328  
E: 2562659.0479  
ELEV: 2110.76

POINT NO. 114 - NAIL AND WASHER  
N: 267205.1646  
E: 2562313.0607  
ELEV: 2107.32

### CIVIL ENGINEER

AHBL INC  
827 WEST FIRST AVENUE  
SPOKANE, WA 99201  
PH. (509) 252-5019  
FAX (509) 315-8862  
CONTACT: ERICK FITZPATRICK, PE

### ELECTRICAL ENGINEER

TRINDERA ENGINEERING  
1875 N LAKEWOOD DRIVE  
COEUR D'ALENE, ID 83814  
PH. (208) 620-3301  
FAX (208) 676-0100  
CONTACT: WALLY BECK

### LANDSCAPE ARCHITECT

AHBL INC  
827 WEST FIRST AVENUE  
SPOKANE, WA 99201  
PH. (509) 252-5019  
FAX (509) 315-8862  
CONTACT: CRAIG ANDERSEN, RLA

### GENERAL PROJECT NOTES

- THE EXISTING CULTURAL AND TOPOGRAPHIC INFORMATION SHOWN IN THESE PLANS HAS BEEN COLLECTED BY AHBL FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE TO FAMILIARIZE THEMSELVES WITH THE PHYSICAL PROJECT AREA PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY THE ENGINEER OF DIFFERING CONDITIONS UPON DISCOVERY.
- THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS FROM THE CONTRACTING AGENCY AND OTHER AGENCIES WITH JURISDICTION.
- PERMANENT SIGNS SHALL BE PER WSDOT SPECIFICATION 8-21.
- GROUND MOUNTED SIGN PLACEMENT SHALL BE IN ACCORDANCE WITH WSDOT STD PLAN G-20.10-02.
- STEEL SIGN SUPPORTS SHALL BE TYPE AS IN ACCORDANCE WITH WSDOT STD PLAN G-24.20-01.
- ROAD SIGNS SHALL MEET THE REQUIREMENTS OF THE 2009 MUTCD.
- SIGN LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION WITH THE ENGINEER IN FIELD PRIOR TO INSTALLATION.
- SEE SPECIAL PROVISIONS FOR UTILITY CONTACT INFORMATION.

### LEGEND:

EXISTING		PROPOSED
	SET NAIL AND WASHER	
	BOLLARD	
	MAIL BOX	
	SIGN	
	SANITARY SEWER MANHOLE	
	SANITARY SEWER CLEANOUT	
	STORM CATCH BASIN	
	STORM MANHOLE	
	ROOF DRAIN	
	DRYWELL	
	POWER TRANSFORMER	
	UTILITY POWER POLE	
	ELECTRICAL VAULT	
	LUMINARIES	
	UTILITY MANHOLE	
	FIRE HYDRANT	
	GAS VALVE	
	WATER METER	
	WATER VALVE	
-----D-----	STORM LINE	-----D-----
-----S-----	SANITARY SEWER LINE	-----S-----
-----G-----	GAS LINE	
-----OHP-----	OVERHEAD POWER LINE	
-----P-----	ELECTRICAL LINE	-----P-----
-----FO-----	FIBER OPTIC LINE	
-----T-----	COMMUNICATIONS LINE	
-----W-----	WATER LINE	-----W-----
	CONCRETE	
	ASPHALT	
---XXX---	CONTOUR MAJOR INTERVAL	---XXX---
-----XXX-----	CONTOUR MINOR INTERVAL	-----XXX-----

Revisions:

Sheet Title:

**GENERAL NOTES & LEGEND**

Designed by: JAM Drawn by: JAM Checked by: EMF

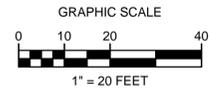
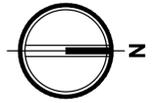
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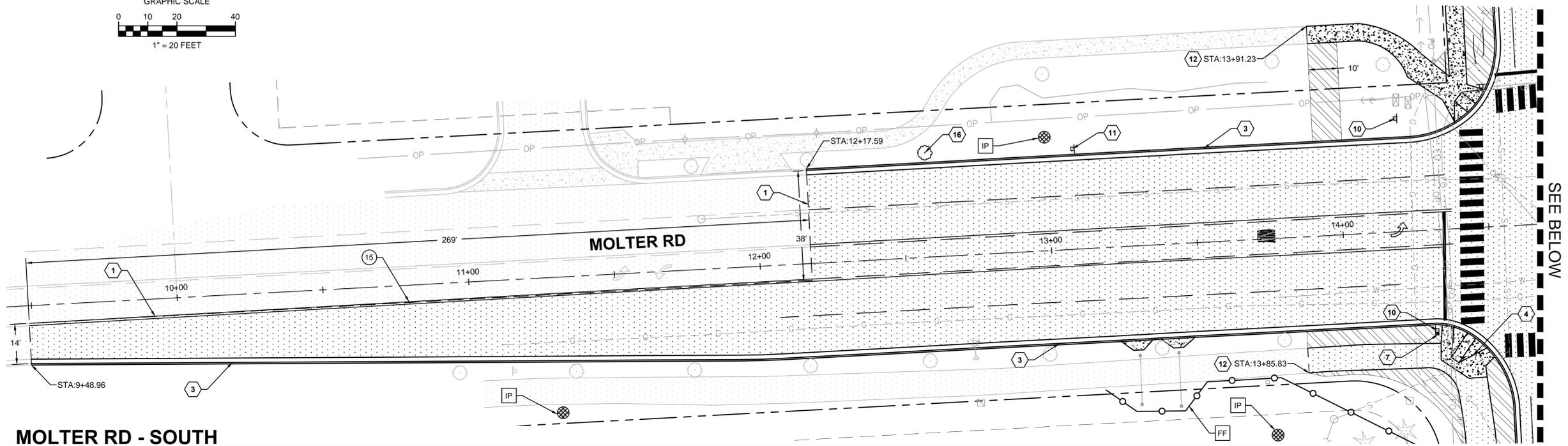
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ANDREW STAPLES, PE

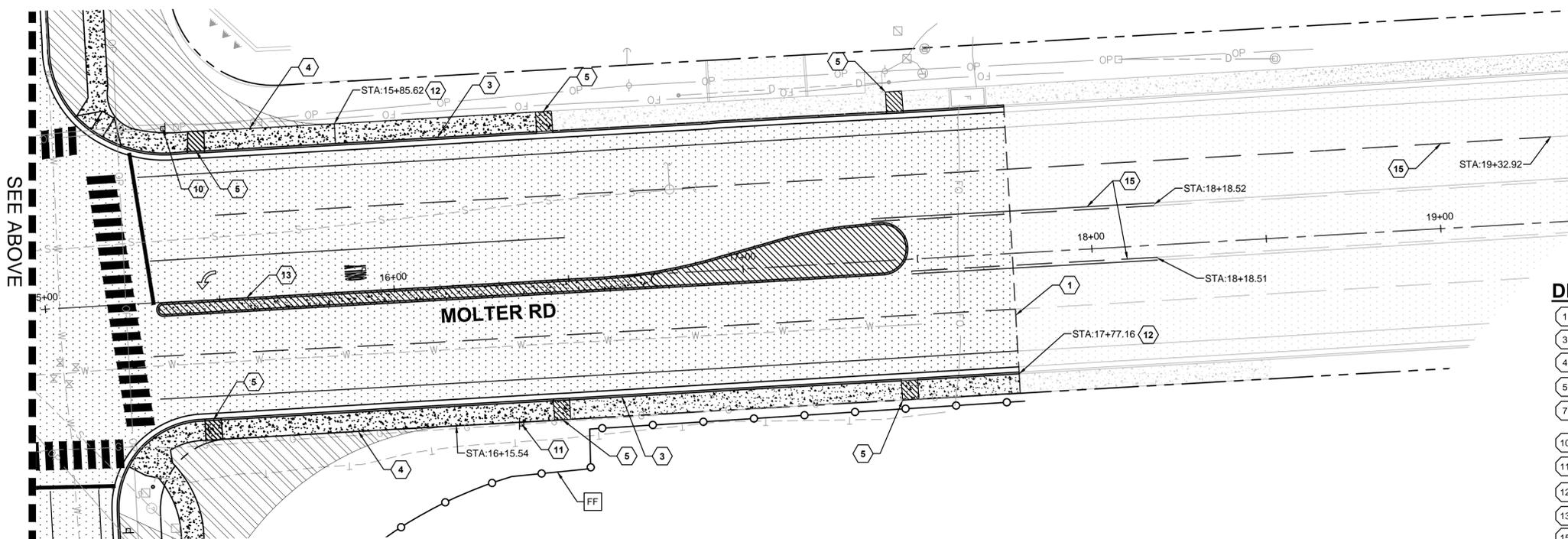
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**MOLTER RD - SOUTH**



**MOLTER RD - NORTH**

- DEMOLITION KEY NOTES**
- 1 SAWCUT FULL DEPTH.
  - 3 REMOVE CURB/GUTTER.
  - 4 REMOVE CONCRETE SIDEWALK.
  - 5 REMOVE CURB INLET, TYPE 2.
  - 7 REMOVE & SALVAGE UTILITY MARKERS. RETURN TO UTILITY PROVIDER.
  - 10 REMOVE & SALVAGE SIGN, RETURN TO CONTRACTING AGENCY.
  - 11 RELOCATE SIGN PER PLANS.
  - 12 SAWCUT CONCRETE AT NEAREST JOINT.
  - 13 REMOVE CONCRETE MEDIAN.
  - 15 REMOVE LANE MARKINGS, RESTRIPE PER PLANS.
  - 16 REMOVE TREE AND STUMP ENTIRELY.

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Sheet Title:  
**MOLTER RD DEMOLITION & TESC**

Designed by: JAM Drawn by: JAM Checked by: EMF

Sheet No.  
**C1.2**





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A  
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Sheet Title:  
**MISSION AVE LAYOUT**

Designed by: JAM Drawn by: JAM Checked by: EMF

Sheet No.

# C2.1

### MARKING LEGEND

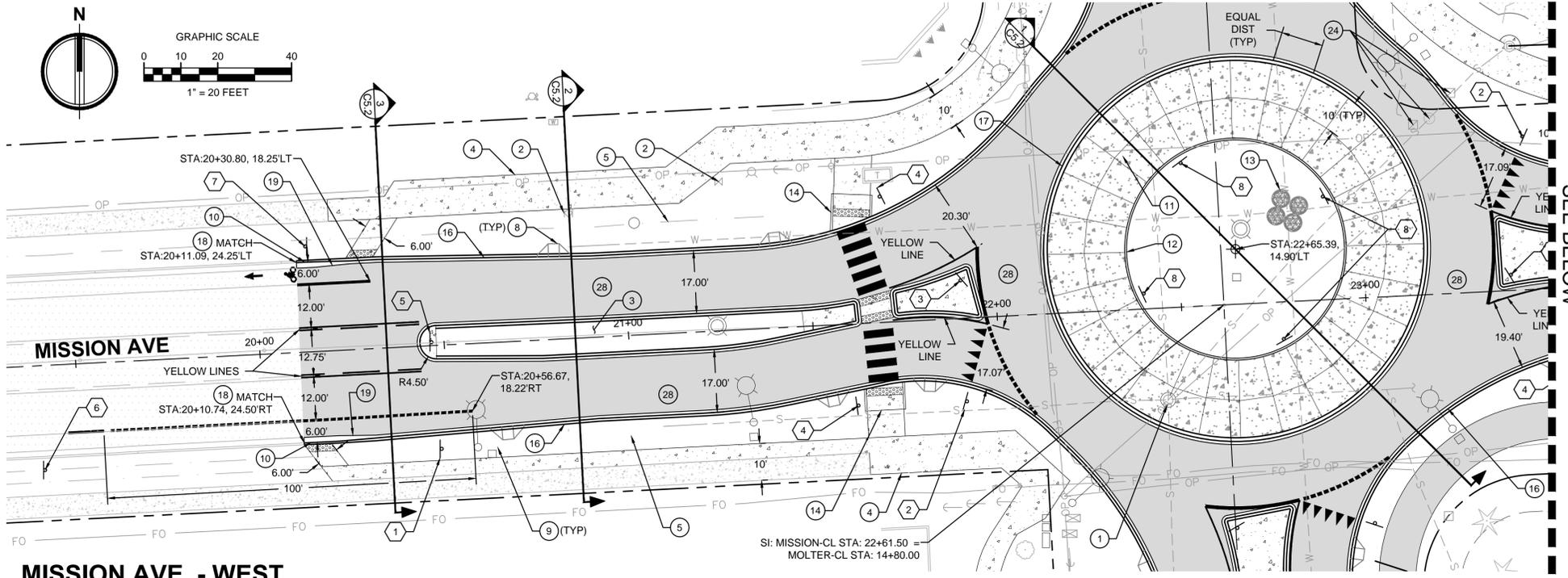
- LANE LINE (4") WSDOT STD PLAN M-20.10-02
- SOLID LANE LINE (4") WSDOT STD PLAN M-20.10-02
- TWO-WAY LEFT-TURN CENTER LINE WSDOT STD PLAN M-20.10-02
- WIDE LANE LINE (8") WSDOT STD PLAN M-20.10-02
- CROSS WALK WSDOT STD PLAN M-15.10-01
- BIKE LANE SYMBOLS WSDOT STD PLAN M-9.50-02
- YIELD LINE SYMBOLS WSDOT STD PLAN M-24.60-04
- WIDE DOTTED LANE LINE (12") WSDOT STD PLAN M-20.10-02

### KEY NOTES

- ADJUST EXISTING MANHOLE TO GRADE.
- ADJUST EXISTING VALVE TO GRADE.
- ROUNDABOUT SPLITTER ISLAND.
- CEMENT CONC SIDEWALK, WSDOT STD PLAN F-30.10-03.
- RESHAPE EXISTING SWALE. MAINTAIN BOTTOM DEPTH AND GRADE.
- CURB INLET TYPE 2, SPOKANE COUNTY STD PLAN B-9.
- CURB INLET TYPE 3.
- CURB INLET TYPE 1, SPOKANE COUNTY STD PLAN B-8.
- LUMINARIES, REFER TO ELECTRICAL PLANS.
- CURB & GUTTER, TYPE B SPOKANE COUNTY STD PLAN A-3.
- CEMENT CONC PAVEMENT, SEE NOTE 3.
- CURB, TYPE A SPOKANE COUNTY STD PLAN A-3.
- VALVE RISER VAULT.
- TYPE PERPENDICULAR B CURB RAMP, WSDOT STD PLAN F-40.15-02.
- ASPHALT PATH.
- ROUNDABOUT CEMENT CONC CURB & GUTTER 2, WSDOT STD PLAN F-10.18-00.
- ROUNDABOUT TRUCK APRON CEMENT CONC CURB 1, WSDOT STD PLAN F-10.18-00.
- SMOOTH TRANSITION TO VERTICAL AND HORIZONTAL ALIGNMENT OF EXISTING CURB AND GUTTER.
- TRANSITION FROM ROUNDABOUT CURB 2 TO CURB AND GUTTER. TRANSITION LENGTH SHALL BE 10' LONG (MIN.). FLOWLINE SHALL BE CONSTRUCTED TO MAINTAIN POSITIVE FLOW TOWARDS CURB INLETS AS SHOWN ON THESE PLANS.
- ADJUST EXISTING CATCH BASIN TO GRADE.
- TYPE PARALLEL B CURB RAMP, WSDOT STD PLAN F-40.12-02.
- POWER POLE W/GUY WIRES, RELOCATED. SEE DEMOLITION & TESC PLANS. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.
- UTILITY VAULTS, RELOCATED. SEE DEMOLITION & TESC PLANS. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.
- ROUNDABOUT CURB NOSEDOWN.
- 1' WIDE BERM, CONSTRUCT 1' (MIN) ABOVE POND BOTTOM AS NEEDED.
- TYPE SINGLE DIRECTION A CURB RAMP, WSDOT STD PLAN F-40.16-02.
- HMA ASPHALT PAVEMENT SECTION.

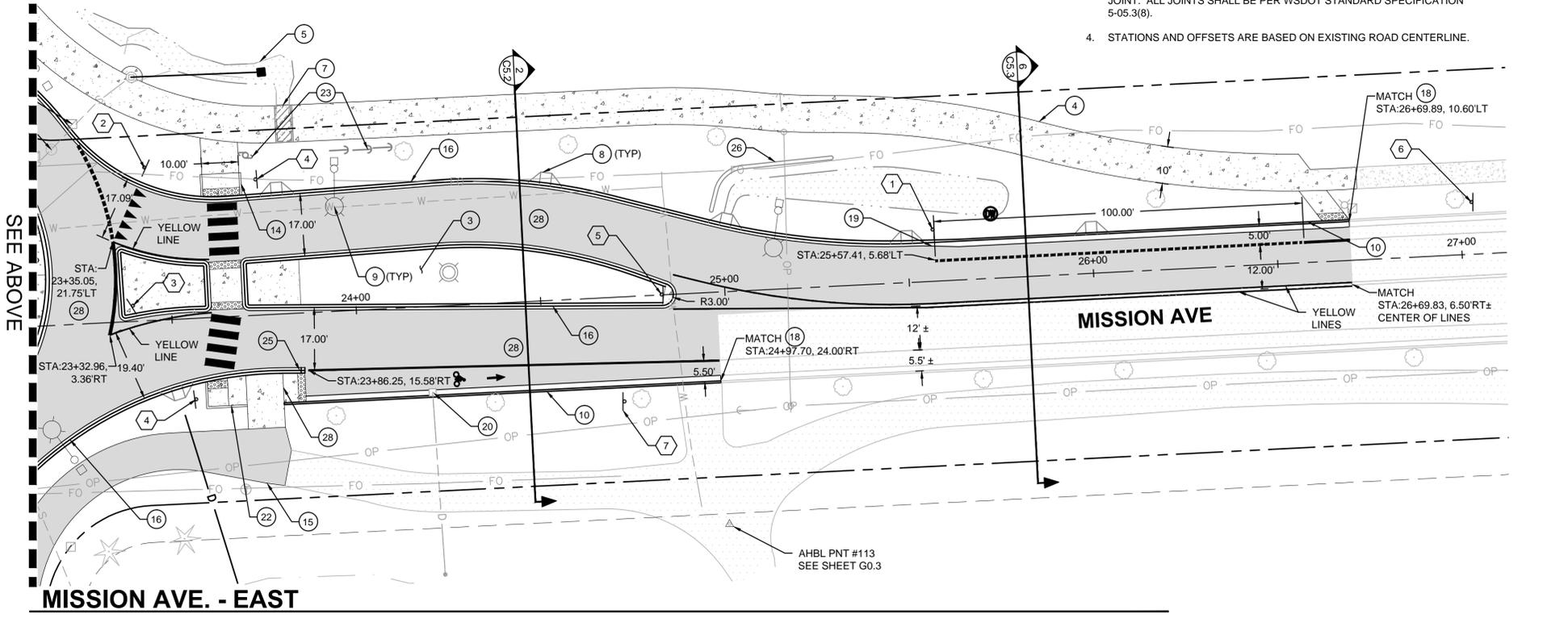
### SIGN KEY NOTES

- ROUNDABOUT SIGN, (W2-6)
- YIELD SIGN W/ROUNDABOUT CIRCULATION PLAQUE, (R1-2 & R6-5P).
- ROUNDABOUT STREET NAME SIGN, (D1-1d)
- CROSSWALK SIGN W/ARROW PLAQUE, (W11-2 & W16-7P)
- KEEP RIGHT SIGN, (R4-7).
- BIKE LANE ENDS SIGN, (R3-17 & R3-17bP).
- SPEED LIMIT SIGN, RELOCATED. SEE NOTE 3.
- ROUNDABOUT DIRECTIONAL ARROW, (R6-4).



### NOTES

- END LANE LINES AT FACE OF CURB, SEE SHEET C5.3 DETAIL 4.
- ALL PAVEMENT MARKINGS ARE WHITE UNLESS OTHERWISE NOTED.
- THERE SHALL BE 28 TRANSVERSE JOINTS THAT ARE RADIAL TO THE CENTER OF THE CENTRAL ISLAND AND EQUAL DISTANCE APART. ALSO THERE SHALL BE A LONGITUDINAL JOINT THAT IS OFFSET 10' FROM BACK OF CURB AT THE OUTSIDE EDGE OF THE TRUCK APRON. THE DISTANCE SHALL BE MEASURED AT THE INTERSECTION OF EACH TRANSVERSE JOINT. ALL JOINTS SHALL BE PER WSDOT STANDARD SPECIFICATION 5-05.3(8).
- STATIONS AND OFFSETS ARE BASED ON EXISTING ROAD CENTERLINE.







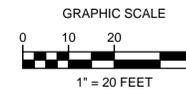
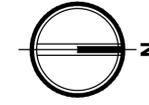




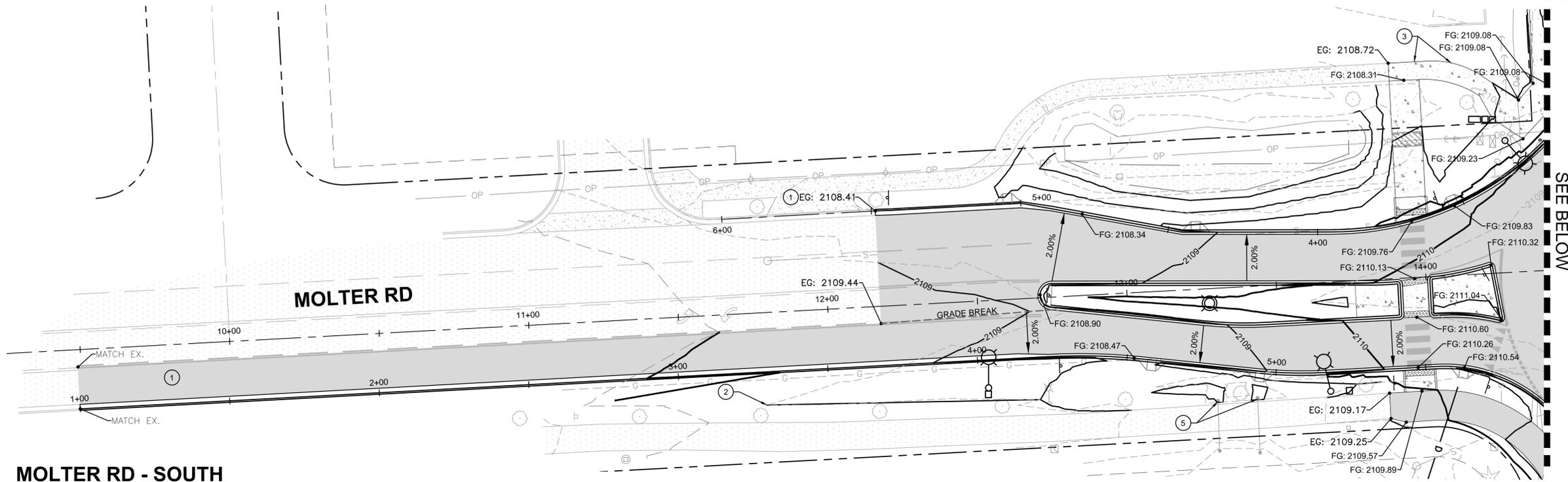
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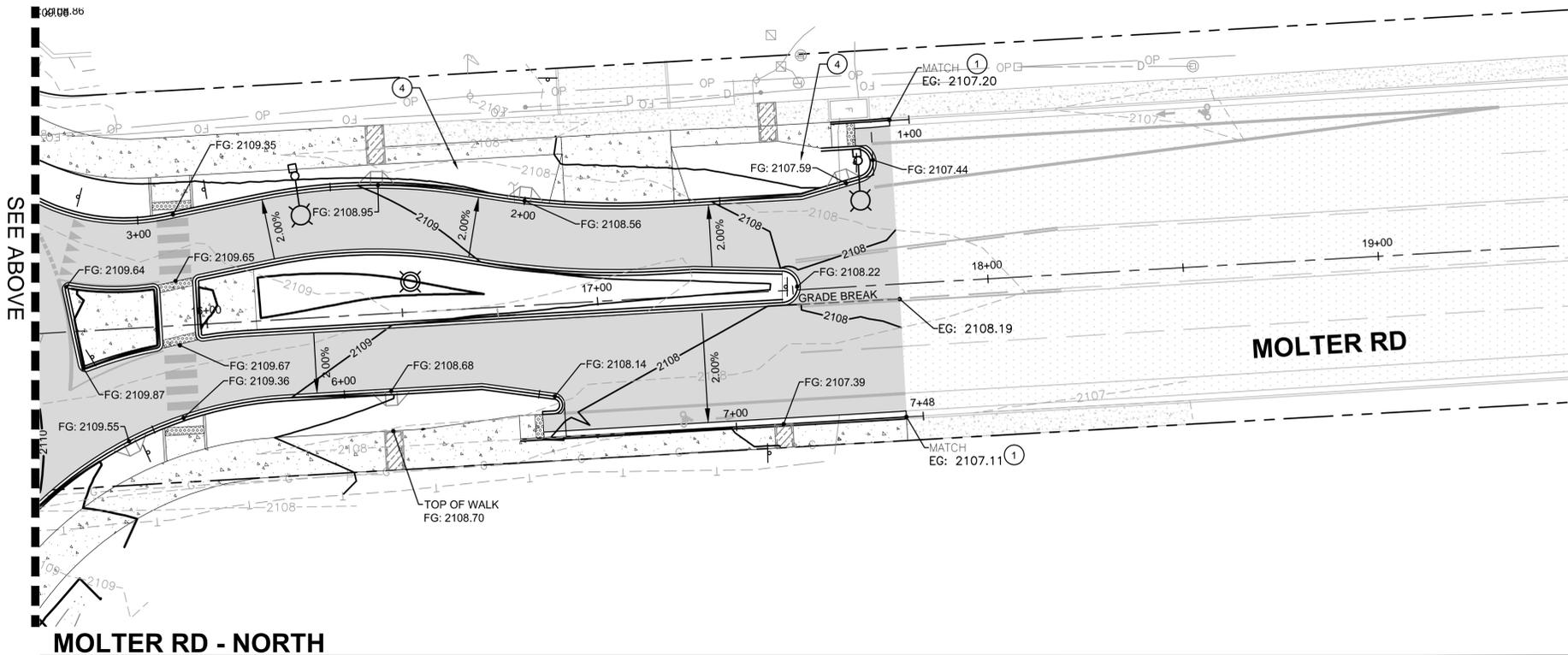
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AHBL PNT #114  
(SEE SHEET G0.3)



**MOLTER RD - SOUTH**



**MOLTER RD - NORTH**

**NOTES**

1. SPOT ELEVATIONS REPRESENT FINISHED GRADE AT FLOWLINE OR CEMENT CONCRETE PAVEMENT UNLESS OTHERWISE NOTED.
2. SPOT ELEVATIONS PROVIDED AT EXISTING STORM INLET REPRESENT FINISHED GRADE AT FLOWLINE AND DO NOT ALLOW FOR THE 1" DEPRESSION AS SHOWN ON SPOKANE COUNTY STD PLAN B-7.
3. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
4. MATCH EXISTING GRADE AT EXISTING CURB AND GUTTER LINES UNLESS INDICATED OTHERWISE.
5. REFER TO LAYOUT PLANS FOR HORIZONTAL CONTROL, SIGNS AND MARKINGS.

**KEY NOTES**

- ① SMOOTH TRANSITION BACK TO EXISTING CURB/GUTTER. TRANSITION LENGTH 10' (MIN.).
- ② RESHAPE EXISTING SWALE/DRAINAGE. MAINTAIN BOTTOM DEPTH, AREA AND GRADE.
- ③ CEMENT CONCRETE SIDEWALK, CONTRACTOR TO MATCH WIDTH OF EXISTING SIDEWALK AND GRADE PER THESE PLANS.
- ④ GRADE BETWEEN TYPE 1 AND TYPE 2 INLETS TO PROVIDE FOR POSITIVE FLOW TOWARDS TYPE 2 INLETS.



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22710 E. COUNTRY VISTA DRIVE  
LIBERTY LAKE, WASHINGTON 99019  
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ANDREW STAPLES, PE

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Sheet Title:  
**MOLTER RD GRADING**

Designed by: JAM Drawn by: JAM Checked by: EMF

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**C3.2**



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# MISSION AVE & MOLTER RD ROUNDABOUT

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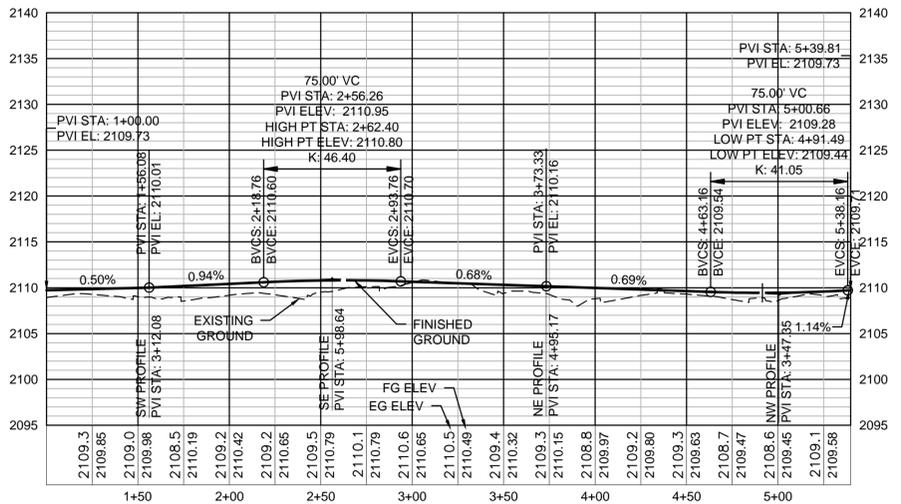
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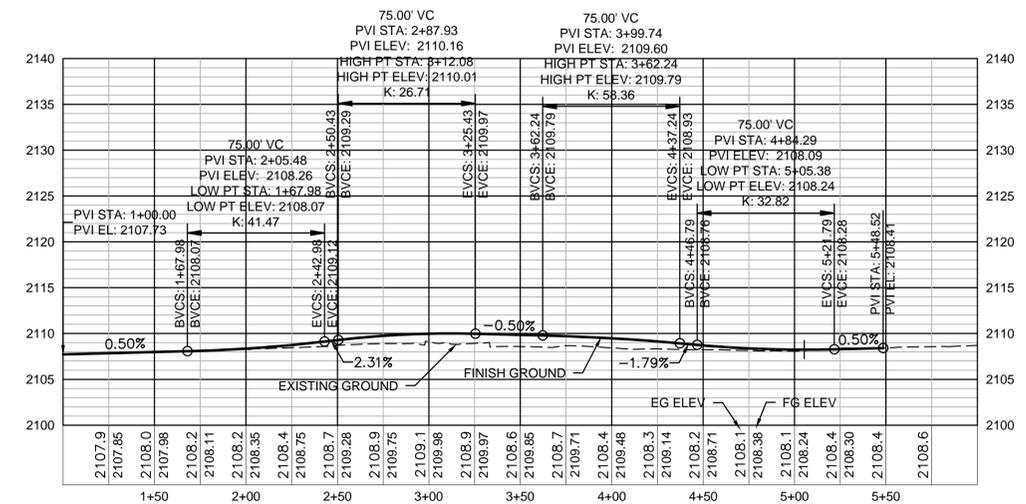
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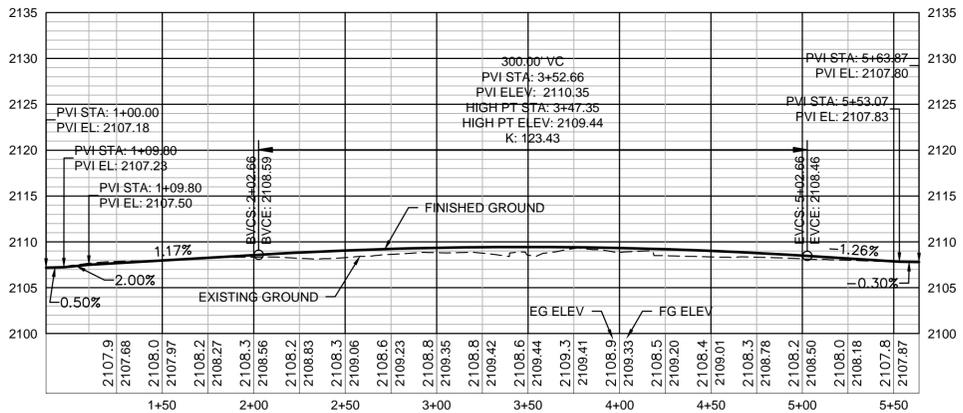
# C3.3



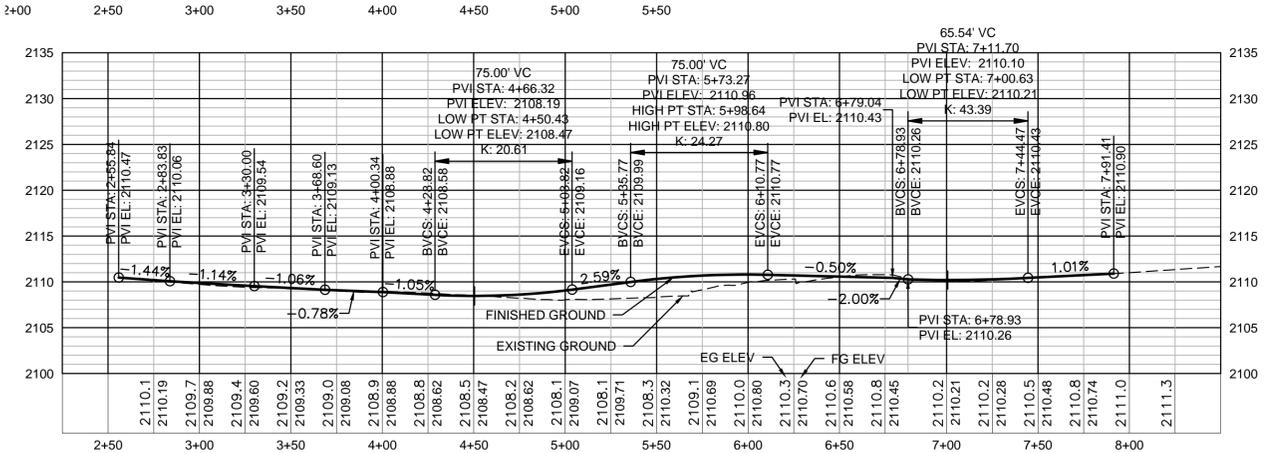
**PROFILE - INSCRIBED CIRCLE**  
SCALE: HORIZONTAL = 50, VERTICAL = 10



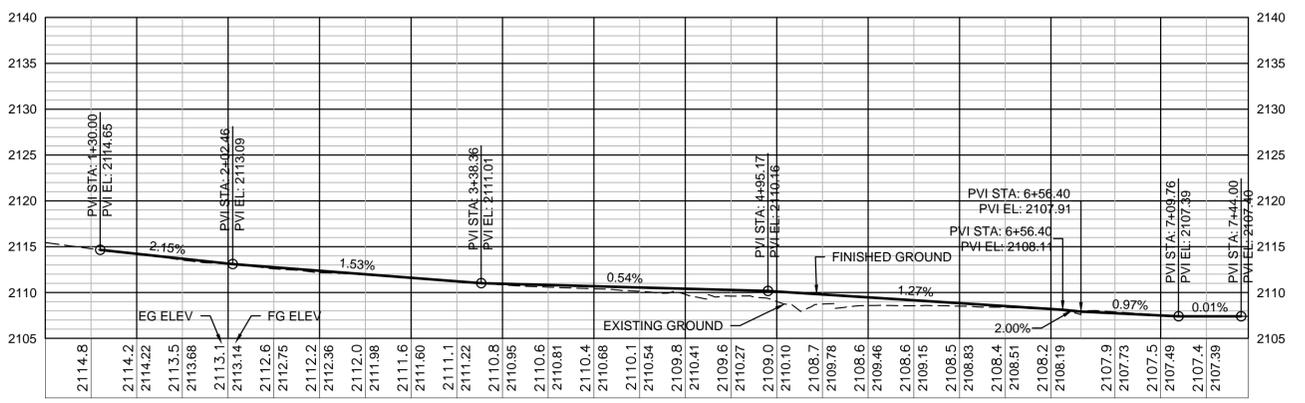
**PROFILE - SW FLOWLINE**  
SCALE: HORIZONTAL = 50, VERTICAL = 10



**PROFILE - NW FLOWLINE**  
SCALE: HORIZONTAL = 50, VERTICAL = 10



**PROFILE - SE FLOWLINE**  
SCALE: HORIZONTAL = 50, VERTICAL = 10



**PROFILE - NE FLOWLINE**  
SCALE: HORIZONTAL = 50, VERTICAL = 10



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# MISSION AVE & MOLTER RD ROUNDABOUT

SEC. 10, 11, 14 & 15, T26N, R42E, W.M.  
CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON.



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Project Title:  
**MISSION AVE & MOLTER RD ROUNDABOUT**

Client:  
**CITY OF LIBERTY LAKE**

22710 E. COUNTRY VISTA DRIVE  
LIBERTY LAKE, WASHINGTON 99019  
(509) 755-6700  
ANDREW STAPLES, PE

Job No.  
2150417.10

Issue Set & Date:  
**95% SUBMITTAL**

02/18/2016

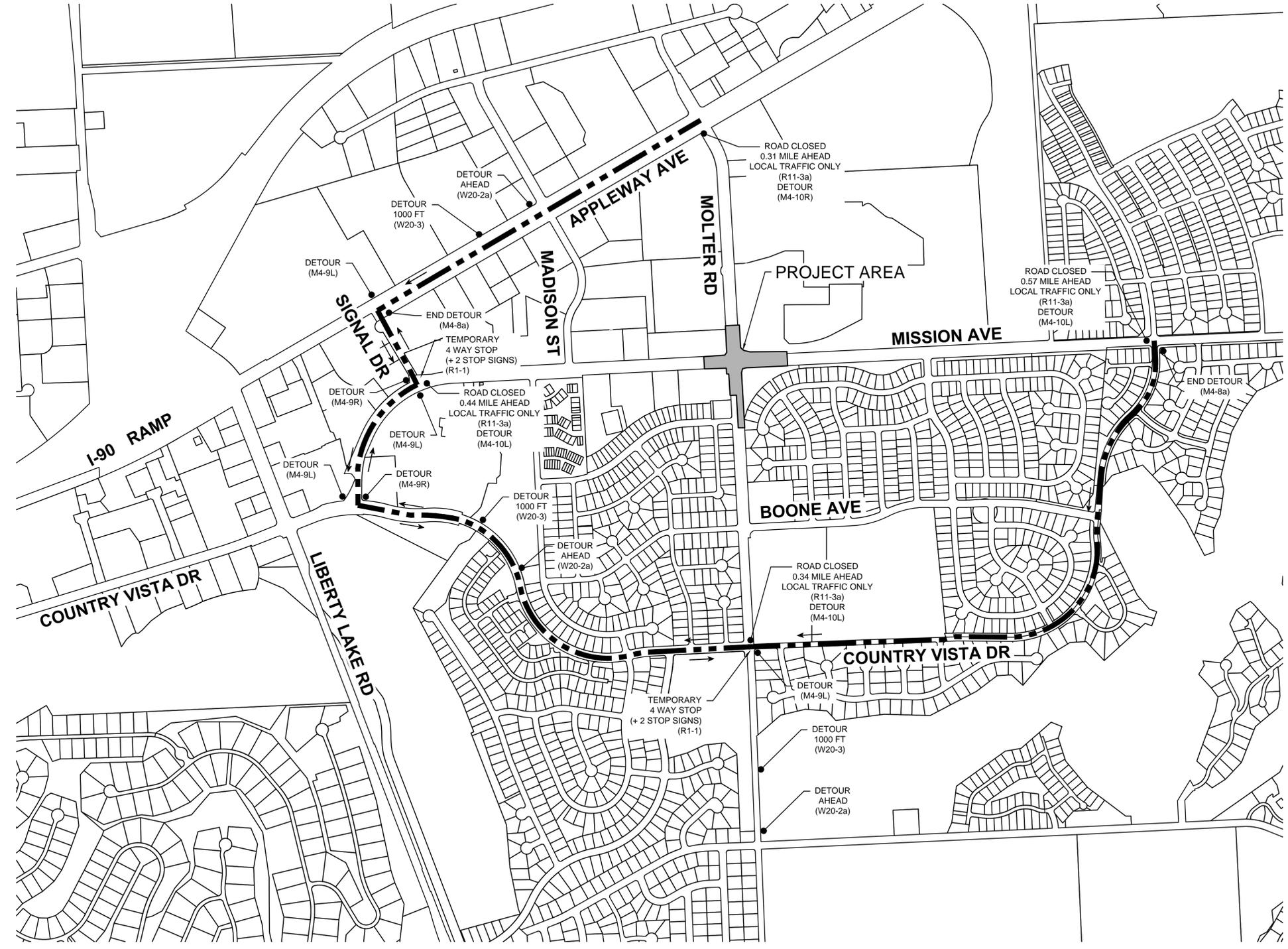
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### LEGEND

	DETOUR ROUTE
	M4-8a
	R11-3a
	M4-9L
	M4-9R
	M4-10L
	M4-10R
	W20-2a
	R1-1

### NOTES

- ALL SIGNS SHALL BE CLASS A, CONVENTIONAL ROAD SIZES PER MUTCD, LATEST EDITION.
- THE CONTRACTOR SHALL INSTALL DETOUR SIGNAGE ONE WEEK PRIOR TO BEGINNING ANY PROJECT PHASES.
- DETOUR SIGNS SHALL BE PLACED 350' ± FROM INTERSECTIONS SHOWN ON THIS PLAN UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- IF CONSTRUCTION ZONE IS OPEN TO TRAFFIC BEFORE COMPLETION OF FINAL PAVING, A ROADWAY CONDITION SIGN (ROUGH ROAD, LOOSE GRAVEL, ETC.) AND A "MOTORCYCLES USE EXTREME CAUTION" SHALL BE INSTALLED AT THE ENTRANCE TO THE CONSTRUCTION ZONE.

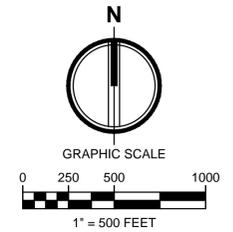


Revisions:


Sheet Title:  
**TRAFFIC CONTROL - INDEX**

Designed by: JAM Drawn by: JAM Checked by: EMF

Sheet No.



# C4.1





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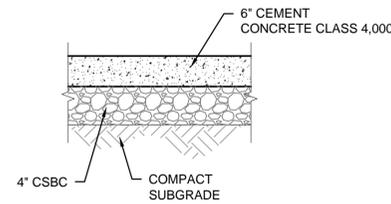
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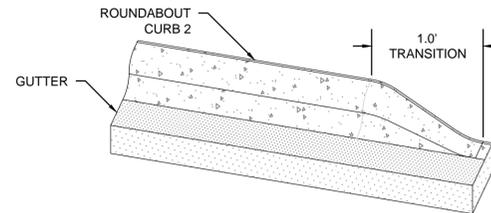
02/18/2016



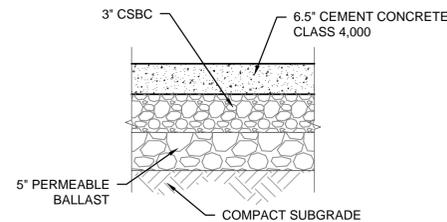
NOTE

1. ALL MEASUREMENTS SHOWN ARE COMPACTED DEPTHS.

**1 CEMENT CONC ISLAND SECTION**  
NOT TO SCALE



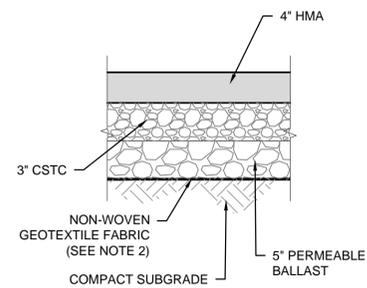
**4 ROUNDABOUT CURB NOSE DOWN DETAIL**  
NOT TO SCALE



NOTE

1. ALL MEASUREMENTS SHOWN ARE COMPACTED DEPTHS.

**2 CEMENT CONC PAVEMENT SECTION**  
NOT TO SCALE



NOTE

1. ALL MEASUREMENTS SHOWN ARE COMPACTED DEPTHS.
2. NON-WOVEN GEOTEXTILE FABRIC SHALL BE FOR SEPARATION.

**3 ASPHALT PAVEMENT SECTION**  
NOT TO SCALE

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Revisions:


Sheet Title: **DETAILS**

Designed by: JAM Drawn by: JAM Checked by: EMF

Sheet No. **C5.1**



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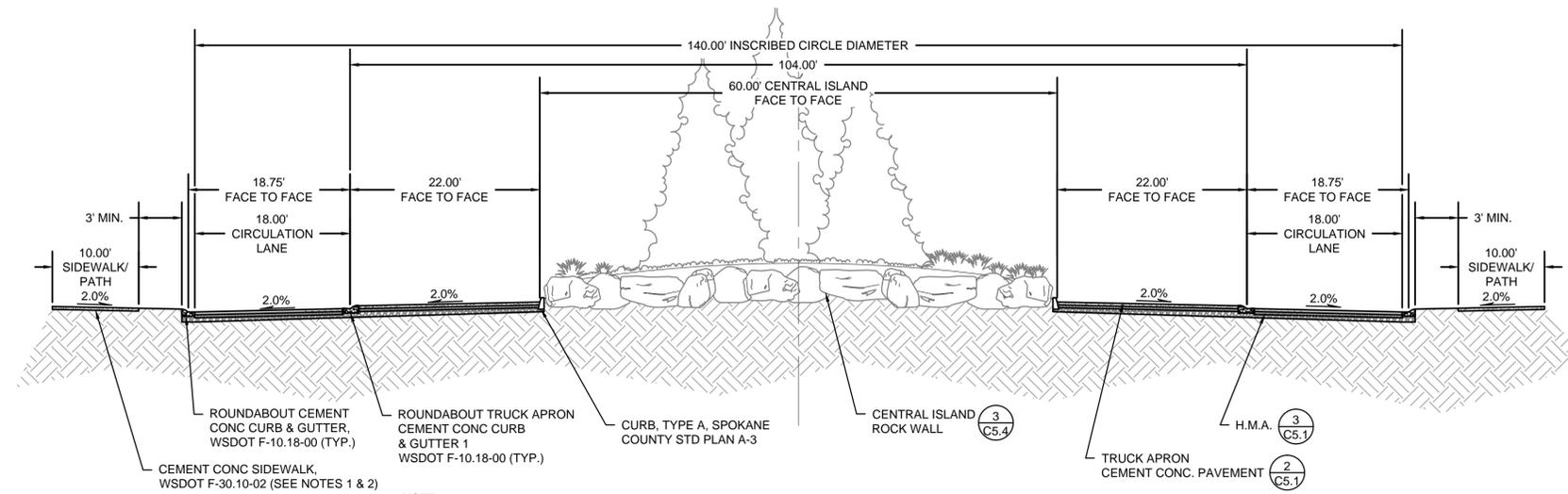
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Issue Set & Date:

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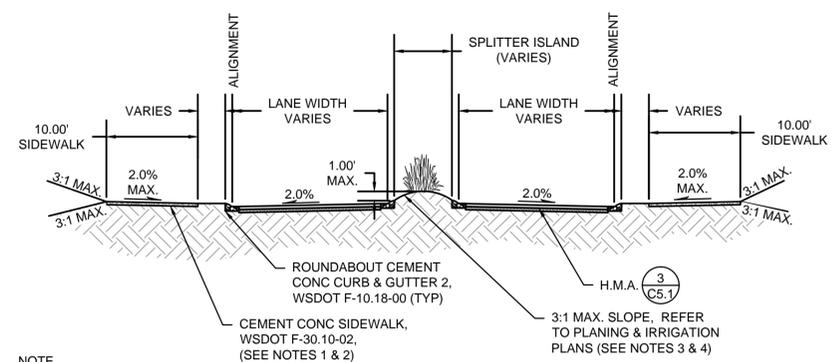
**NOTE**

1. ASPHALT PATH AT THE SOUTHEAST CORNER SHALL MAINTAIN A 2% CROSS SLOPE TOWARDS EXISTING DRAINAGE POND. SEE ASPHALT PATH SECTION, SHEET C5.3.
2. SIDEWALKS/ASPHALT PATHS WITHIN THE CONSTRUCTION LIMITS ARE INCREASED IN WIDTH TO 10' UNLESS OTHERWISE SHOWN.
3. SLOPE FOR TRUCK APRON IS FROM TBC OF TYPE 1 ROUNDABOUT CURB TO FLOWLINE OF CURB AROUND CENTER ISLAND.
4. FINISHED GRADE SHALL BE LOWER THAN TOP BACK OF CURB, SEE SHEET L1.1.

### 1 ROUNDABOUT ROAD SECTION

NOT TO SCALE

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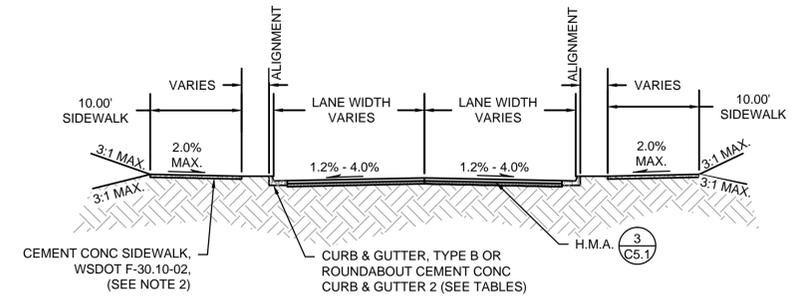


**NOTE**

1. ASPHALT PATH AT THE SOUTHEAST CORNER SHALL MAINTAIN A 2% CROSS SLOPE TOWARDS EXISTING DRAINAGE POND. SEE ASPHALT PATH SECTION SHEET C5.3.
2. SIDEWALKS/ASPHALT PATHS WITHIN THE CONSTRUCTION LIMITS ARE INCREASED IN WIDTH TO 10' UNLESS OTHERWISE SHOWN.
3. SEE PLAN VIEW SHEETS FOR MEDIAN CURB ELEVATION.
4. FINISHED GRADE SHALL BE LOWER THAN TOP BACK OF CURB, SEE SHEET L1.1.

### 2 APPROACH LANE ROAD SECTION

NOT TO SCALE



SECTION STATION TABLE	
<b>MISSION AVE</b>	<b>MOLTER RD</b>
LEFT STA: 20+11.08 - 20+43.41	LEFT STA: 12+17.59 - 12+70.27
24+85.91 - 24+97.70	17+51.19 - 17+77.16
RIGHT STA: 20+10.74 - 20+43.41	RIGHT STA: 12+17.59 - 12+70.27
23+85.22 - 24+97.70	17+51.19 - 17+77.16

CURB & GUTTER TYPE B TABLE	
<b>MISSION AVE</b>	<b>MOLTER RD</b>
LEFT STA: 20+11.08 - 20+15.80	LEFT STA: 12+17.59 - 12+66.17
25+63.90 - 26+69.88	17+68.12 - 17+77.16
RIGHT STA: 20+10.74 - 20+20.23	RIGHT STA: 12+17.59 - 12+62.59
23+85.22 - 24+97.70	17+51.19 - 17+77.16

**NOTE**

1. CROSS SLOPE VARIES FOR TRANSITION BACK TO EXISTING ROAD SECTION.
2. SIDEWALKS/ASPHALT PATHS WITHIN THE CONSTRUCTION LIMITS ARE INCREASED IN WIDTH TO 10' UNLESS OTHERWISE SHOWN.

ROUNDABOUT CURB & GUTTER 2 TABLE	
<b>MISSION AVE</b>	<b>MOLTER RD</b>
LEFT STA: 20+15.80 - 20+43.41	LEFT STA: 12+66.17 - 12+70.27
24+85.91 - 24+97.70	17+51.19 - 17+72.34
RIGHT STA: 20+20.23 - 20+43.41	RIGHT STA: 12+62.59 - 12+70.27

### 3 TRANSITION ROAD SECTION

NOT TO SCALE

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**DETAILS**

Designed by: JAM Drawn by: JAM Checked by: EMF

Sheet No.

# C5.2



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**CITY OF LIBERTY LAKE**

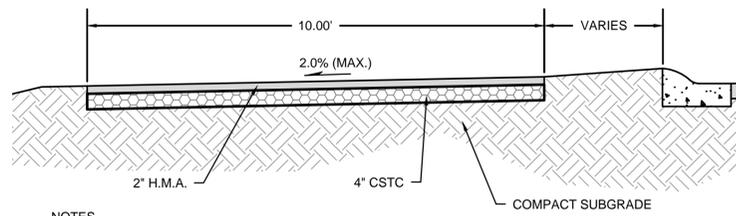
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ANDREW STAPLES, PE

Job No.  
2150417.10

Issue Set & Date:  
**95% SUBMITTAL**

02/18/2016

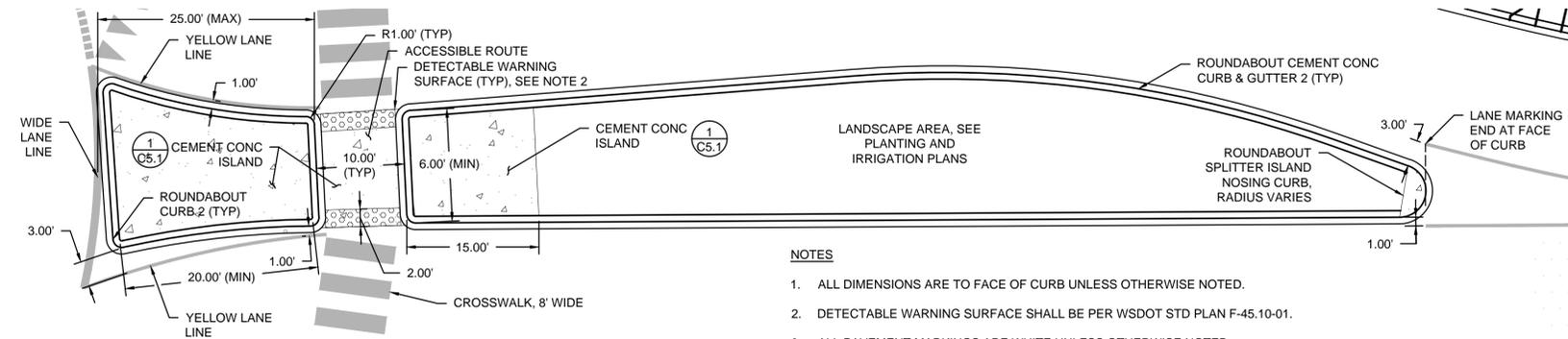
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**NOTES**

1. MAINTAIN A 2.0% MAXIMUM, CROSS SLOPE TOWARDS THE EXISTING DRAINAGE POND.

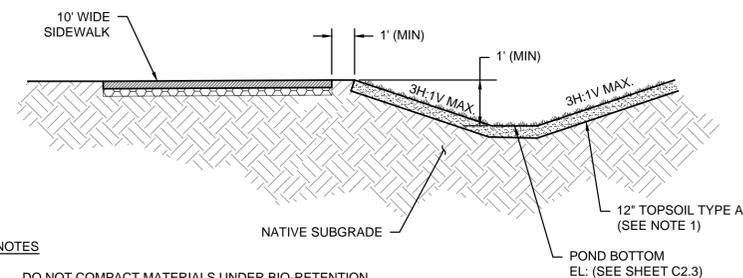
**1 ASPHALT PATH**  
NOT TO SCALE



**NOTES**

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. DETECTABLE WARNING SURFACE SHALL BE PER WSDOT STD PLAN F-45.10-01.
3. ALL PAVEMENT MARKINGS ARE WHITE UNLESS OTHERWISE NOTED.

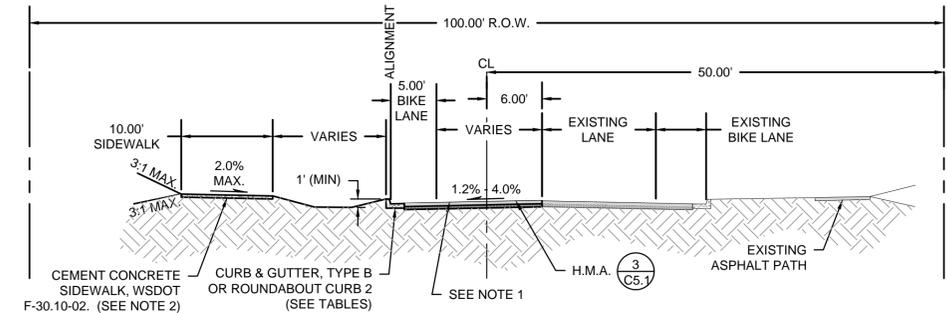
**4 SPLITTER ISLAND DETAIL**  
NOT TO SCALE



**NOTES**

1. DO NOT COMPACT MATERIALS UNDER BIO-RETENTION AREAS. AVOID CONSTRUCTION EQUIPMENT TRAVEL IN TREATMENT FACILITY AREAS.

**2 BIOINFILTRATION POND DETAIL**  
NOT TO SCALE

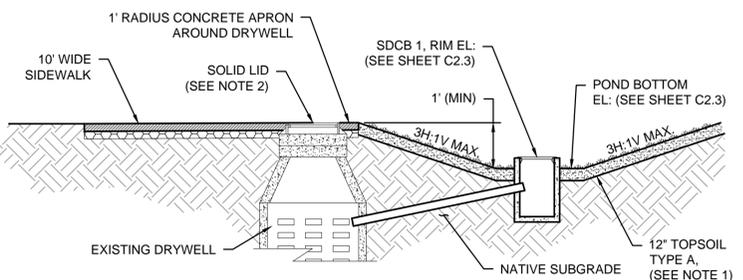


**NOTE**

1. CROSS SLOPE VARIES FOR TRANSITION BACK TO EXISTING ROAD SECTION.
2. SIDEWALKS/ASPHALT PATHS WITHIN THE CONSTRUCTION LIMITS ARE INCREASED IN WIDTH TO 10' UNLESS OTHERWISE SHOWN.
3. VERTICAL AND HORIZONTAL CONTROL ARE AT FLOWLINE. SEE PLAN VIEWS ON SHEET C3.1 AND PROFILES ON SHEET C3.3.

CURB & GUTTER TYPE B TABLE	
MISSION AVE	LEFT STA: 25+63.90 - 26+69.88
ROUNDABOUT CURB & GUTTER 2 TABLE	
MISSION AVE	LEFT STA: 24+97.70 - 25+63.90

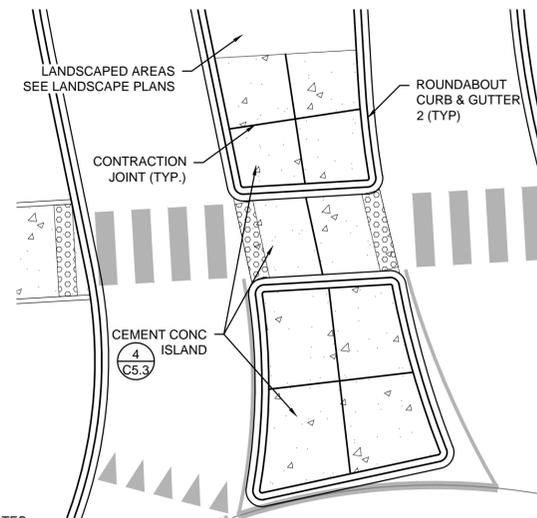
**6 MISSION ROAD SECTION - STA 24+97.70 TO STA 26+69.88**  
NOT TO SCALE



**NOTES**

1. DO NOT COMPACT MATERIALS UNDER BIO-RETENTION AREAS. AVOID CONSTRUCTION EQUIPMENT TRAVEL IN TREATMENT FACILITY AREAS.
2. ADJUST TO GRADE AND REPLACE GRATE WITH SOLID LID MARKED "STORM". RETURN EXISTING LID TO CONTRACTING AGENCY.

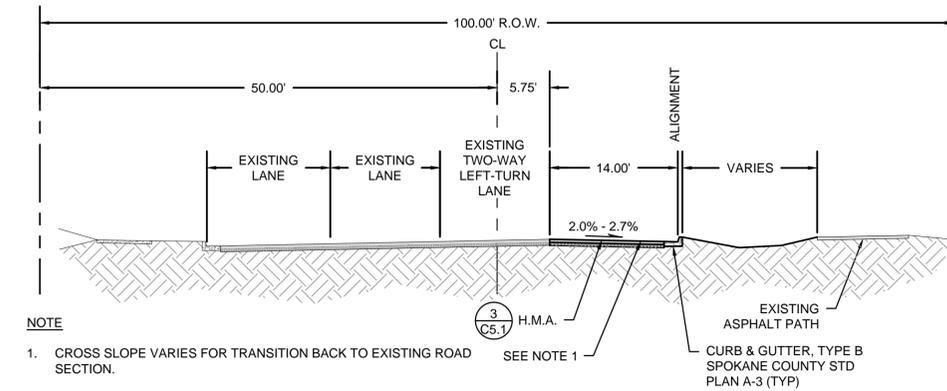
**3 BIOINFILTRATION OVERFLOW DETAIL**  
NOT TO SCALE



**NOTES**

1. EACH ISLAND SHALL BE DIVIDED EQUALLY WITH CONTRACTION JOINTS. A MINIMUM OF ONE CONTRACTION JOINT IN EACH DIRECTION SHALL BE PROVIDED, 10' MAX. BETWEEN CONTRACTION JOINTS PER WSDOT STD. SPECIFICATION 5-05.3(8).

**5 SPLITTER ISLAND & ACCESSIBLE ROUTE JOINT LAYOUT**  
NOT TO SCALE



**NOTE**

1. CROSS SLOPE VARIES FOR TRANSITION BACK TO EXISTING ROAD SECTION.
2. VERTICAL AND HORIZONTAL CONTROL ARE AT FLOWLINE. SEE PLAN VIEWS ON SHEET C3.2 AND PROFILES ON SHEET C3.3.

**7 MOLTER ROAD SECTION - STA 9+48.96 TO STA 12+17.56**  
NOT TO SCALE

Revisions:

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**DETAILS**

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Drawn by: JAM  
Checked by: EMF

Sheet No.

**C5.3**



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ANDREW STAPLES, PE

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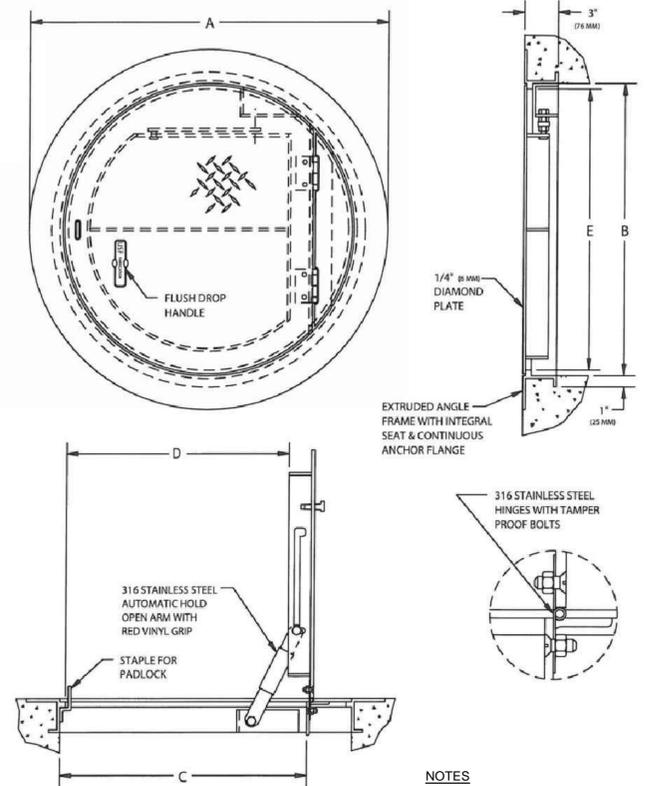
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Issue Set & Date:

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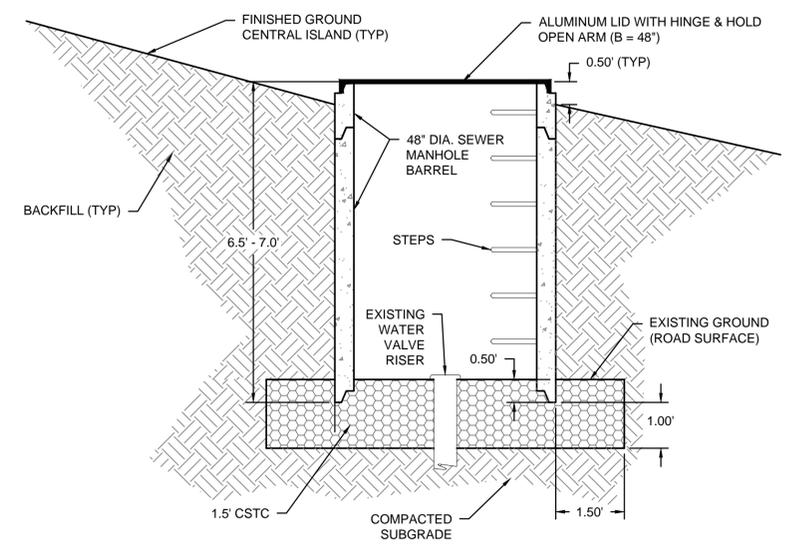
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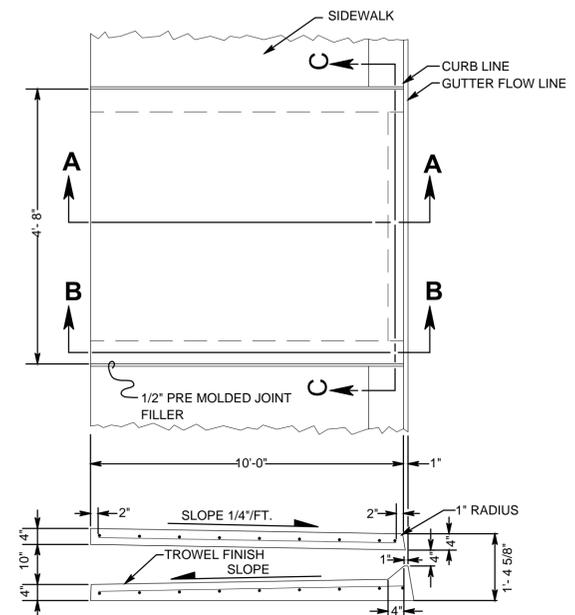
- NOTES**
1. THE EXISTING WATER VALVE RISER RING AND COVER SHALL REMAIN AT ITS CURRENT ELEVATION AND THE BARREL SHALL BE CENTERED ON THE VALVE RISER.
  2. FINISHED GRADE SHALL BE LOWER THAN TOP OF BARREL, SEE DETAIL ON SHEET L1.1.

**NOTE**  
-MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.  
-LOADING: 300 LBS. PER SQ. FOOT. (1464 KG. PER SQ. M)



### 1 VALVE RISER VAULT DETAIL

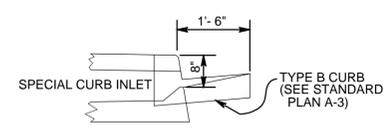
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### SECTION A-A

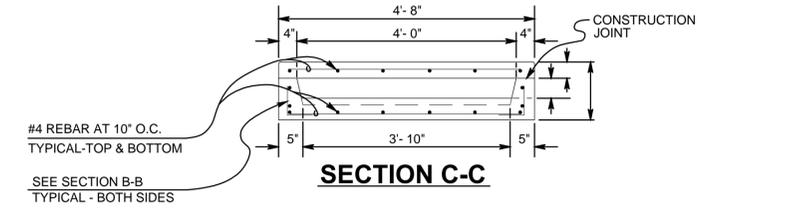


### SECTION B-B REBAR PLACEMENT



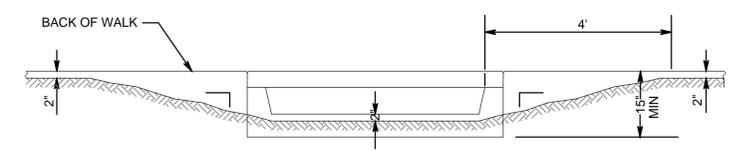
### GENERAL NOTES

1. CURB INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. TOP SURFACE TO BE BROOM FINISHED.
3. ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELLED WITH 1/4" RADIUS EDGER.



### SECTION C-C

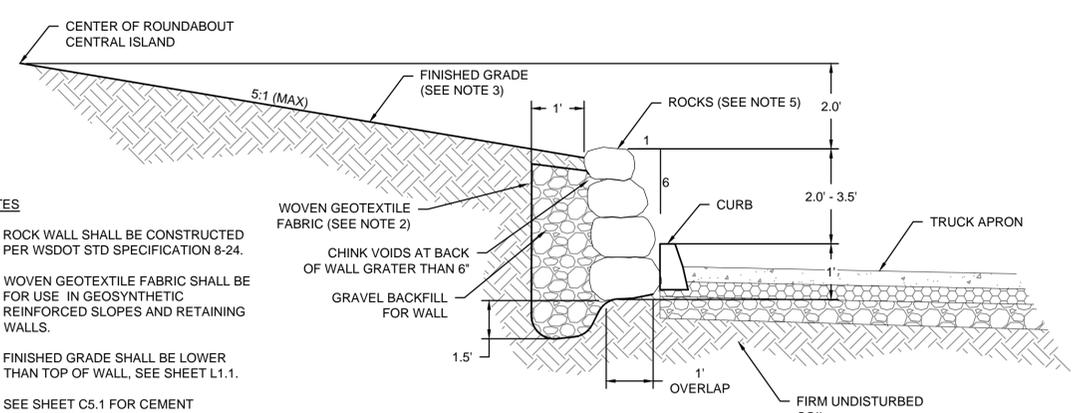
### GUTTER DEPRESSION DETAIL



### OUTLET SWALE GRADING DETAIL

### 2 CURB INLET TYPE 3 DETAIL

NOT TO SCALE



- NOTES**
1. ROCK WALL SHALL BE CONSTRUCTED PER WSDOT STD SPECIFICATION 8-24.
  2. WOVEN GEOTEXTILE FABRIC SHALL BE FOR USE IN GEOSYNTHETIC REINFORCED SLOPES AND RETAINING WALLS.
  3. FINISHED GRADE SHALL BE LOWER THAN TOP OF WALL, SEE SHEET L1.1.
  4. SEE SHEET C5.1 FOR CEMENT CONCRETE SECTION
  5. ROCKS FOR ROCK WALL SHALL BE NO MORE THAN 2' MAN IN SIZE.

### 3 CENTRAL ISLAND ROCK WALL DETAIL

NOT TO SCALE

Revisions:	
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Designed by:	JAM
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2016 STREET  
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Client:  
**CITY OF LIBERTY LAKE**

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LIBERTY LAKE, WASHINGTON 99019  
(509) 755-6700  
ANDREW STAPLES, PE

Job No.  
2150417.40

Issue Set & Date:  
**95% SUBMITTAL**

2/18/16



STATE OF WASHINGTON  
LICENSED  
LANDSCAPE ARCHITECT

CRAIG D. ANDERSEN  
LICENSE NO. 1005  
EXPIRES ON 3-14-2016

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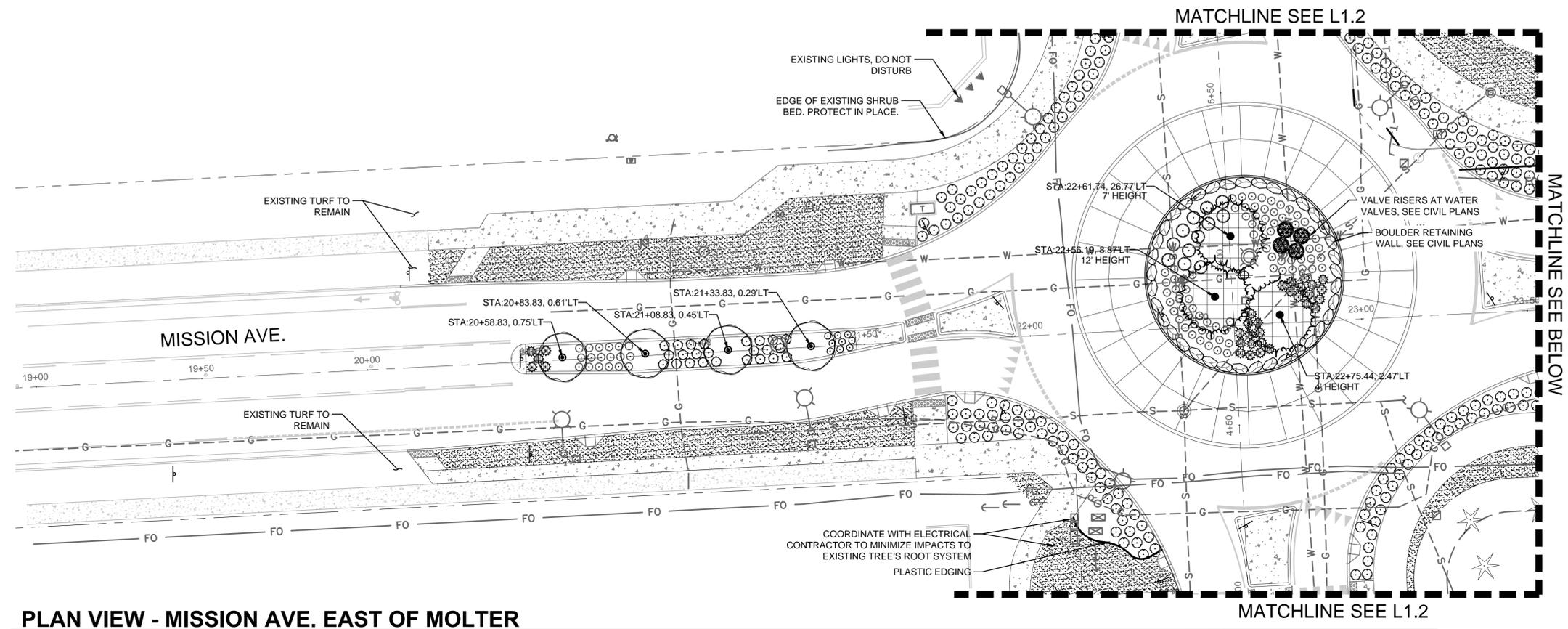
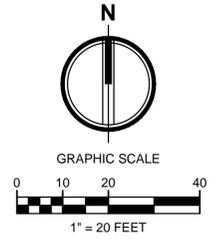
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- Revisions:

Sheet Title:  
**MISSION AVE  
PLANTING**

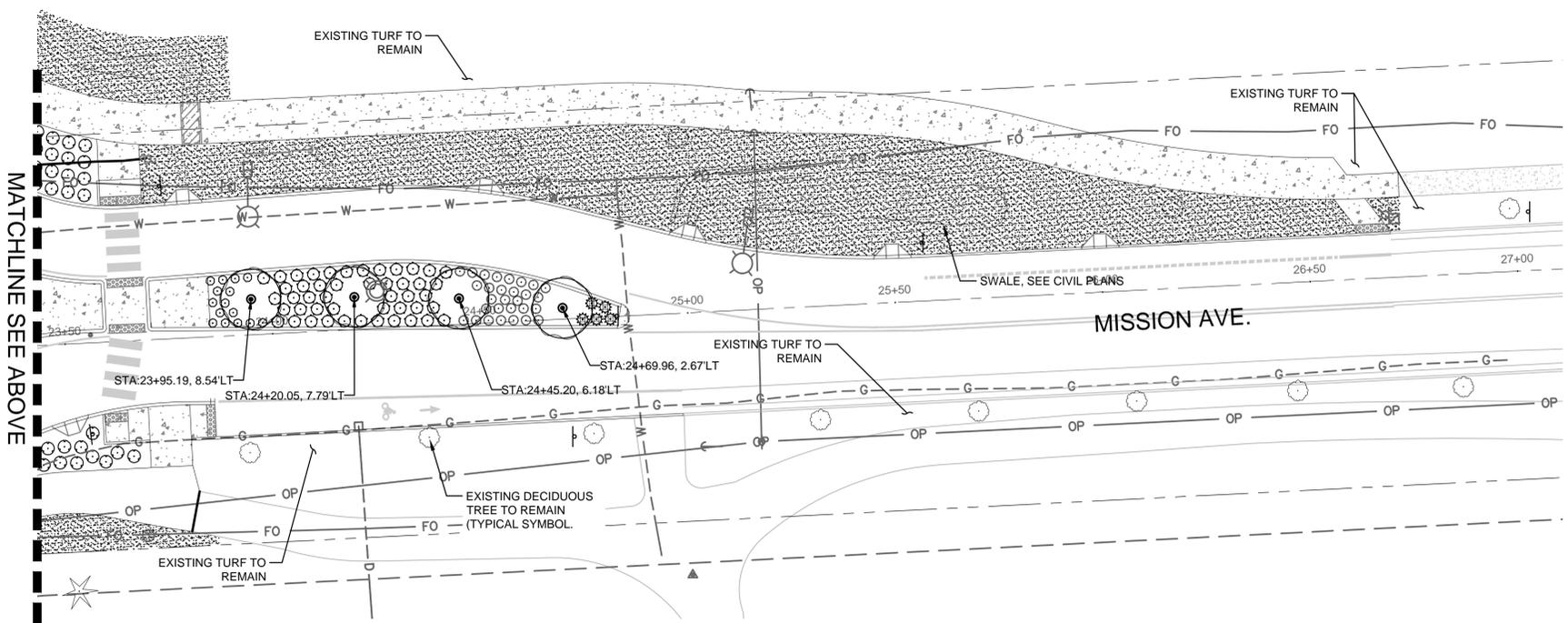
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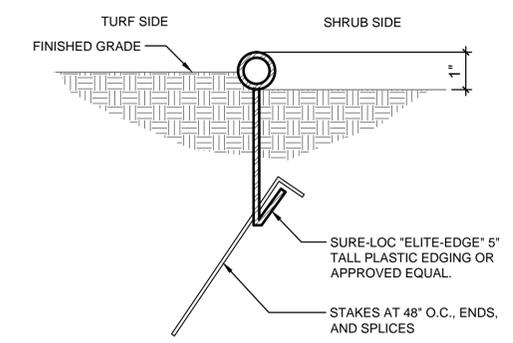
# L1.1



**PLAN VIEW - MISSION AVE. EAST OF MOLTER**  
SCALE: HORIZONTAL 1" = 20'



**PLAN VIEW - MISSION AVE. WEST OF MOLTER**  
SCALE: HORIZONTAL 1" = 20'



**1 PLASTIC EDGING**  
NTS

P-2015-0417-20



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ANDREW STAPLES, PE

Job No.  
2150417.40

Issue Set & Date:  
**95% SUBMITTAL**

2/18/16



STATE OF WASHINGTON  
LICENSED  
LANDSCAPE ARCHITECT

CRAIG D. ANDERSEN  
LICENSE NO. 1005  
EXPIRES ON 3-14-2016

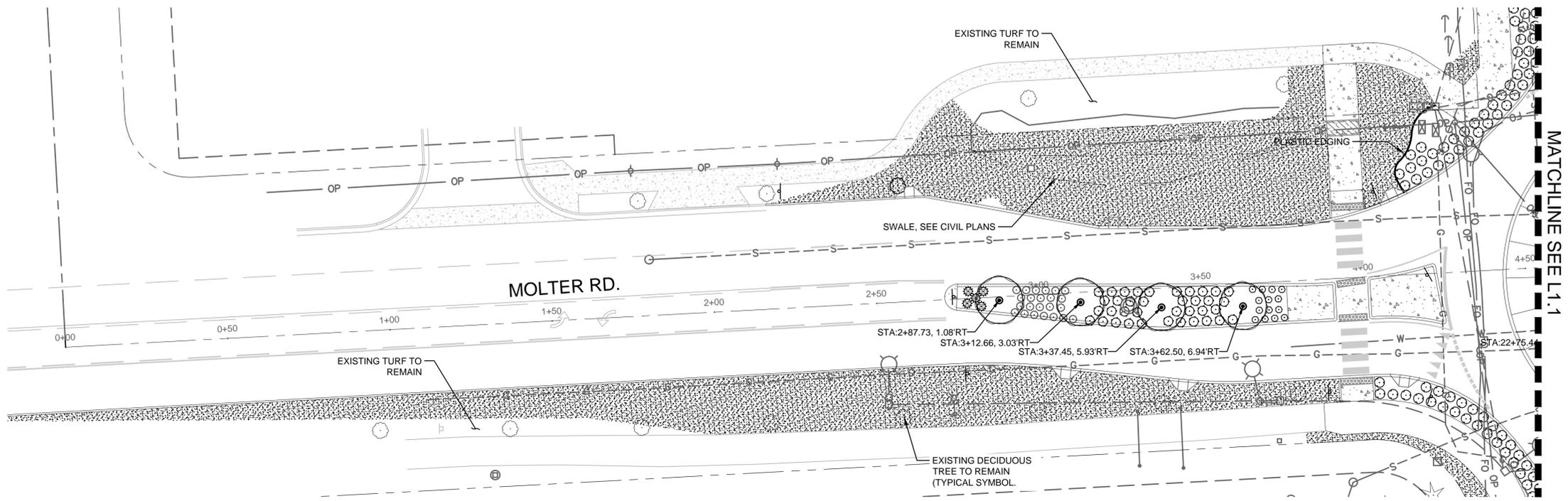
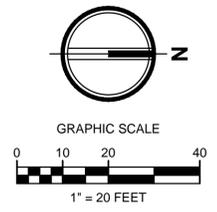
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Revisions:

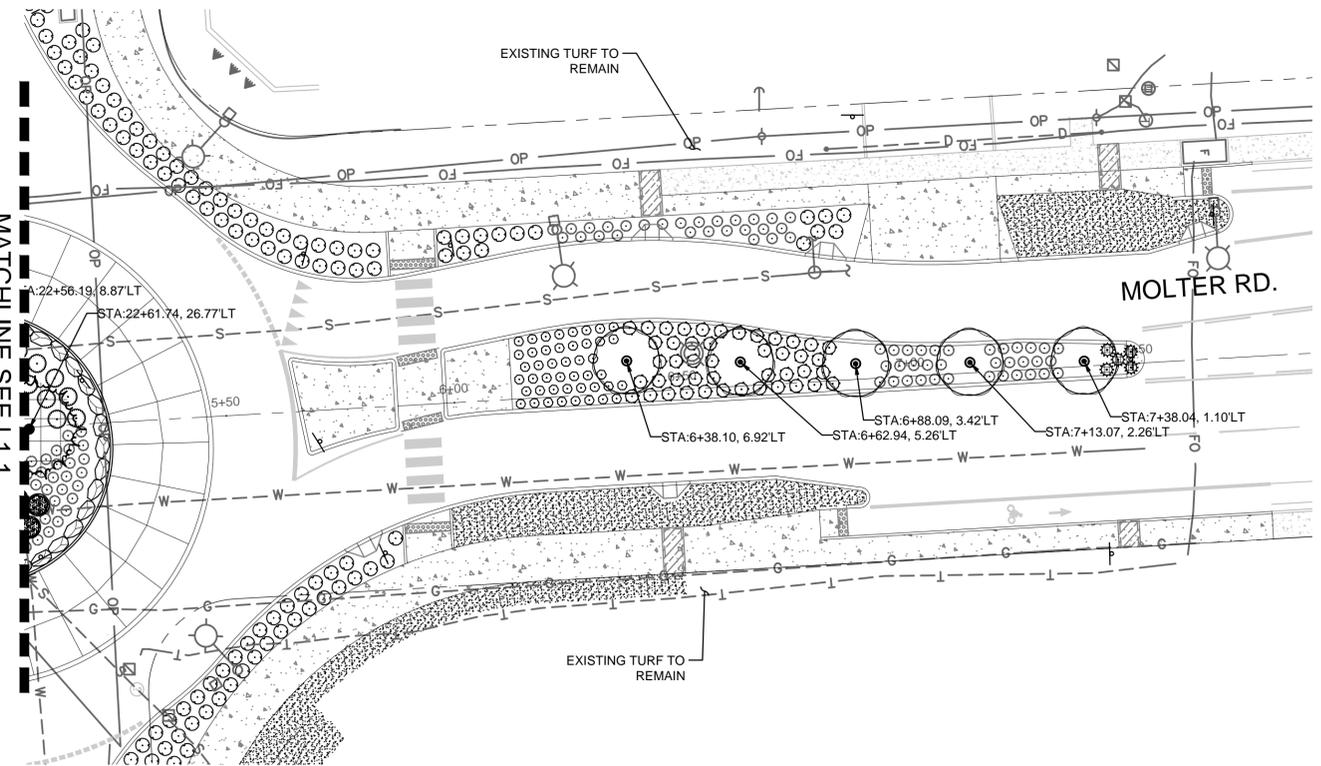

Sheet Title:  
**MOLTER RD PLANTING**

Designed by: CDA Drawn by: CDA Checked by: EMF/JM

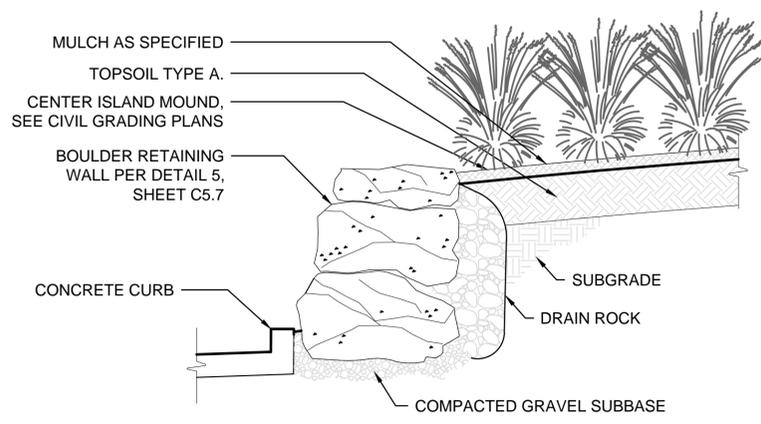
Sheet No.  
**L1.2**



**PLAN VIEW - MOLTER RD. SOUTH OF MISSION**  
SCALE: HORIZONTAL 1" = 20'



**PLAN VIEW - MOLTER RD. NORTH OF MISSION**  
SCALE: HORIZONTAL 1" = 20'



**SECTION - CENTER ISLAND PLANTING**  
1/2" = 1'-0"



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# LIBERTY LAKE 2016 STREET PROJECTS

## SEC. 10, 11, 14 & 15 T26N, R42E, W.M.

### CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON.



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827 West First Avenue, Suite 301 Spokane, WA 99201  
509.252.5019 TEL 509.315.8862 FAX www.ahbl.com WEB

#### PLANT SCHEDULE - MISSION & MOLTER

TREES	CODE	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE	REMARKS	QTY
	AF	ABIES FRASERI 4', 7', AND 12' SPECIMEN QUALITY	FRASER FIR	CONT/B&B			FULL & BUSHY TO BASE	3
	AB	ACER RUBRUM 'BOWHALL'	BOWHALL MAPLE	B&B	2-1/2" CAL	10' MIN.	CLR TO 6'	17
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	CONT	REMARKS	QTY		
	BA	BERBERIS THUNBERGII 'ADMIRATION'	ADMIRATION BARBERRY	2 GAL	3' O.C.	83		
	FM	FORSYTHIA X INTERMEDIA 'MINDOR'	SHOW OFF FORSYTHIA	2 GAL	5' O.C.	12		
	HS	HELICTOTRICHON SEMPERVIRENS	BLUE OAT GRASS	1 GAL	3' O.C.	206		
	PR	POTENTILLA FRUTICOSA 'RED ACE' TM	RED ACE POTENTILLA	2 GAL	4' O.C.	223		
	RN	ROSA X 'NOARE'	RED CARPET ROSE	2 GAL	4' O.C.	46		
	ST	SPIRAEA BETULIFOLIA 'TOR'	BIRCHLEAF SPIREA	2 GAL	4' O.C.	153		
GROUND COVERS	CODE	BOTANICAL NAME	COMMON NAME	CONT	REMARKS	SPACING	QTY	
	TH	TURF HYDROSEED	TURF LAWNS	HYDROSEED			20,823 SF	

#### GENERAL LANDSCAPE NOTES

1. THE WORK IN THESE PLANS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS MODIFIED OR SUPPLEMENTED BY THE SPECIAL PROVISIONS FOR THIS PROJECT.
2. PLANTING SHALL CONFORM TO ALL APPLICABLE MUNICIPAL CODE REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ON-SITE CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION.
4. ALL PLANTING AREAS SHALL BE STRIPPED AND CLEARED OF ALL EXISTING ROOTS, WEEDS, ROCKS AND DEBRIS OR CONTAMINATED SOIL. RAKE SUBGRADE TO A SMOOTH AND EVEN GRADE. DO NOT STRIP OR CLEAR AREAS WITH EXISTING VEGETATION TO BE PRESERVED OR WHERE DOING SO WOULD DAMAGE ROOTS OF PLANTS TO REMAIN.
5. THE CONTRACTOR SHALL VERIFY ALL PLANT MATERIAL QUANTITIES PRIOR TO INSTALLATION. ANY PLANT MATERIAL QUANTITIES LISTED ARE FOR THE CONVENIENCE OF THE CONTRACTOR. ACTUAL NUMBER OF SYMBOLS SHALL HAVE PRIORITY OVER QUANTITY DESIGNATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COUNTING THE TOTAL NUMBER OF PLANTS INDICATED ON THE PLANS AND ESTIMATING GROUND COVER QUANTITIES.
6. THE CONTRACTOR SHALL, AT A MINIMUM, RESTORE ALL DISTURBED LANDSCAPES TO THEIR PREVIOUS CONDITION.
7. CONTRACTOR SHALL INSTALL IMPORTED TOPSOIL "TYPE A" TO ALL NEW PLANTED AREAS PER THE TOPSOIL TABLE ON THIS SHEET. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL OF FINAL GRADES FROM THE OWNER PRIOR TO PLANTING. TOPSOIL DEPTHS SHALL BE AS FOLLOWS:

LANDSCAPE TYPE	TOPSOIL DEPTH
NEW TURF AREAS	6-INCHES MIN.
NEW SHRUB AREAS	12-INCHES MIN.
EXISTING AREAS	AS NEEDED TO MEET GRADE
DRYLAND SEED AREAS	NO TOPSOIL
SWALES	SEE CIVIL PLANS FOR BSM DEPTH
8. LAWN AREAS TO BE HYDROSEED PER PLANS AND SPECIFICATIONS UNLESS SOD IS APPROVED BY THE OWNER PRIOR TO INSTALLATION.
9. ALL SHRUB AREAS SHALL RECEIVE 3" OF DARK BARK FINES MULCH OVER WEED FABRIC (TYPAR 3201 OR EQUAL).
10. SEE SHEET G0.2 FOR SHEET KEY.
11. SEE SHEET L3.1 FOR PLANTING DETAILS.
12. SEE SHEETS L2.1 - L2.3 FOR IRRIGATION PLANS.
13. SEE "E" SHEETS FOR ELECTRICAL PLANS.

#### HYDROSEED NOTES

1. PROVIDE FRESH, CLEAN, NEW-CROP SEED COMPLYING WSDOT 9-14 AND WAC 16-302. PROVIDE SEED MIXTURE COMPOSED OF GRASS SPECIES AND PERCENTAGES AS FOLLOWS:

SPECIES	PERCENTAGE
3-WAY CANADIAN BLUEGRASS BLEND	60%
3-WAY PERENNIAL FESCUE BLEND	30%
CREeping RED FESCUE	10%
2. TURF HYDROSEED (TURF LAWNS)
  - 2.1. SEED AT 7 POUNDS PLS PER 1,000 SQUARE FEET.
3. SEED MIXES ARE AVAILABLE THROUGH CLEARWATER SEED, SPOKANE, WA 509-343-3108
4. ALL SEEDING OF SLOPES SHALL BE INSTALLED WITH AN APPROVED TACKIFIER OR EQUIVALENT.

Project Title:

**LIBERTY LAKE  
2016 STREET  
PROJECTS**

Client:

**CITY OF LIBERTY LAKE**

22710 E. COUNTRY VISTA DRIVE  
LIBERTY LAKE, WASHINGTON 99019  
(509) 755-6700  
ANDREW STAPLES, PE

Job No.

2150417.40

Issue Set & Date:

**95% SUBMITTAL**

2/18/16



STATE OF  
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- Revisions:

Sheet Title:

**PLANTING  
SCHEDULE & NOTES**

Designed by: CDA Drawn by: CDA Checked by: EMF/JM

Sheet No.

**L1.3**



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# LIBERTY LAKE 2016 STREET PROJECTS

SEC. 10, 11, 14 & 15 T26N, R42E, W.M.  
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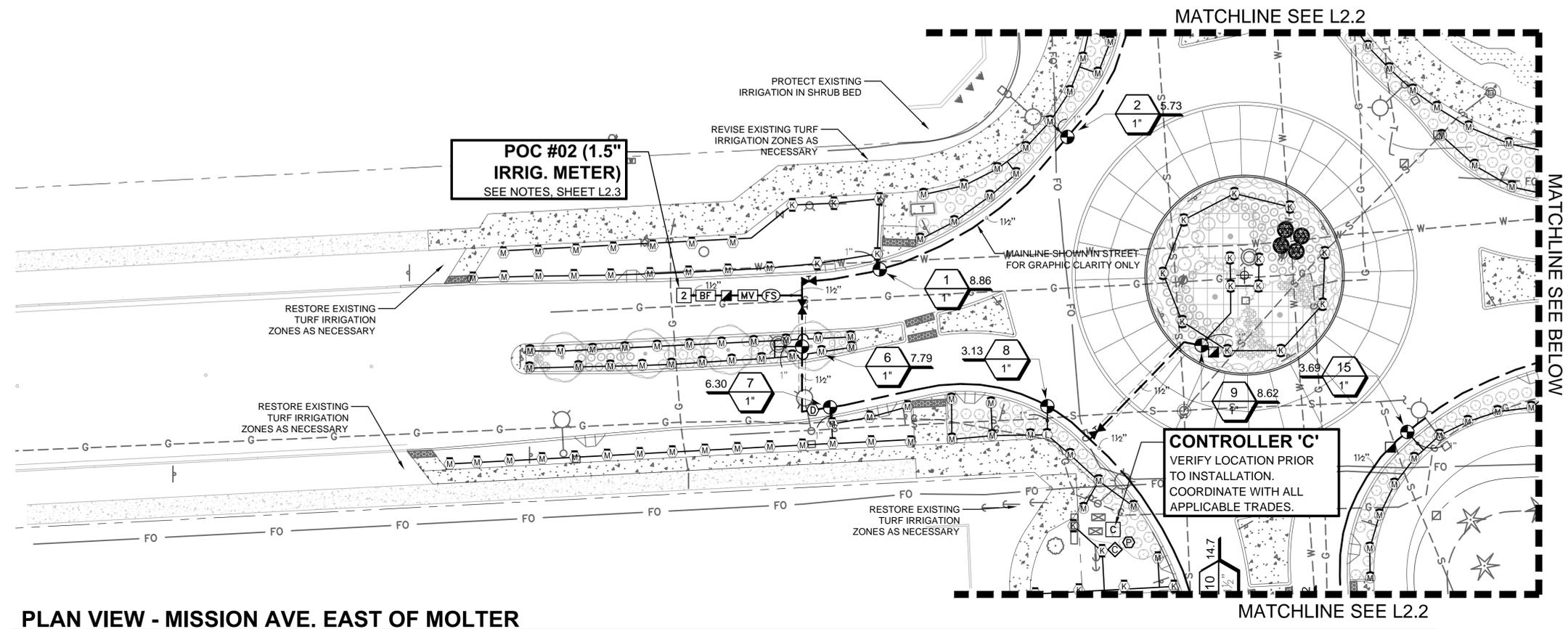
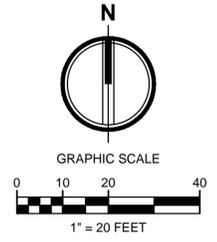
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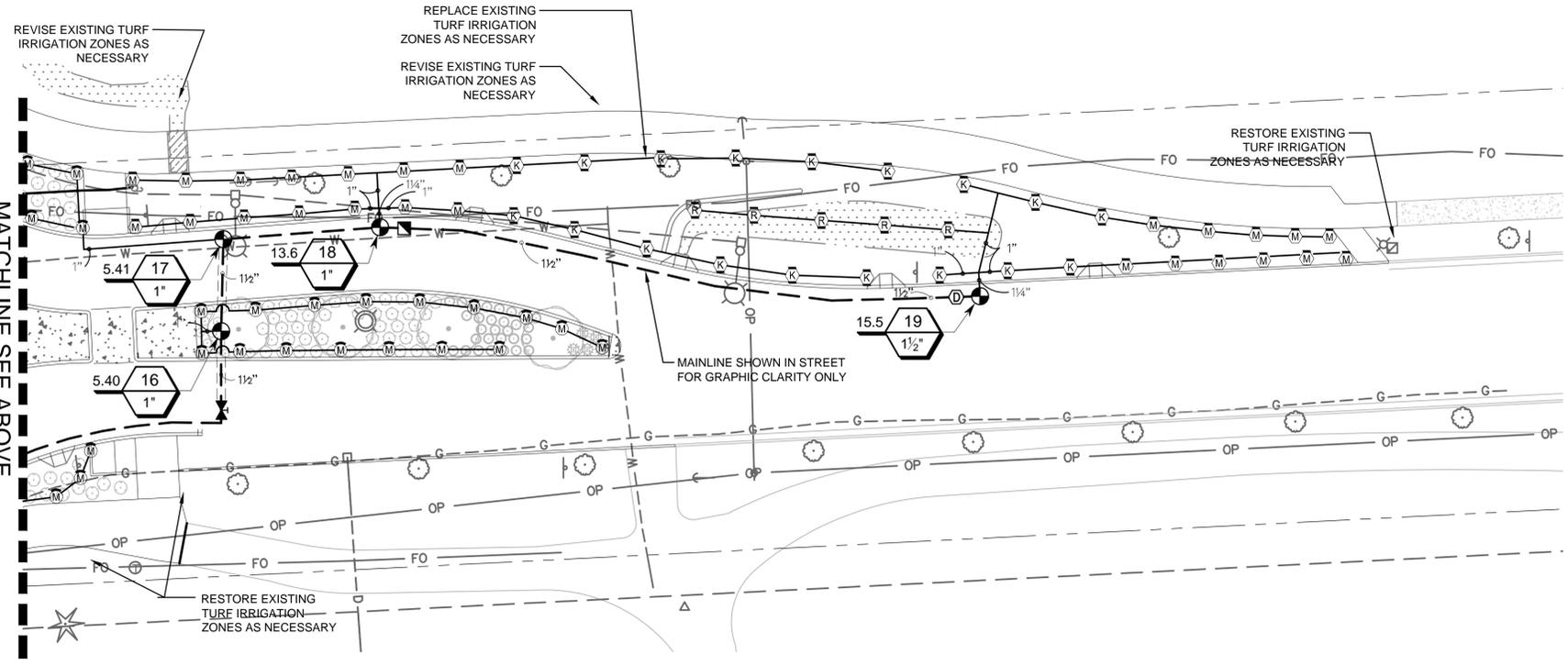


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**PLAN VIEW - MISSION AVE. EAST OF MOLTER**  
SCALE: HORIZONTAL = 20



**PLAN VIEW - MISSION AVE. WEST OF MOLTER**  
SCALE: HORIZONTAL = 20

### NOTES

1. THE POINT OF CONNECTION LOCATION SHOWN ON THIS PLAN IS APPROXIMATE. CONTRACTOR SHALL COORDINATE LOCATION WITH OWNER IN THE FIELD PRIOR TO INSTALLATION.
2. REPAIR LANDSCAPING AND EXISTING IRRIGATION AT LIGHT AND CONTROLLER LOCATIONS.
3. SEE POINT OF CONNECTION AND CONTROLLER NOTES ON SHEET L2.3

Revisions:


Sheet Title:  
**MISSION AVE  
IRRIGATION**

Designed by: CDA Drawn by: CDA Checked by: EMF/JM

Sheet No.

# L2.1





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#### IRRIGATION SYSTEM DESIGN NOTES

- WATER PURVEYOR: LIBERTY LAKE SEWER AND WATER DISTRICT (LLSWD).  
1.1. CONTACT INFORMATION: LARRY WHITE (509) 922-5443
- THIS DESIGN ADDS A NEW IRRIGATION SYSTEM FOR THE AREAS AFFECTED BY CONSTRUCTION OF THE NEW MISSION & MOLTER ROUNDABOUT.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING IRRIGATION EQUIPMENT AND ZONES IMPACTED BY THE CONSTRUCTION OF THIS PROJECT PRIOR TO CONSTRUCTION. PROVIDE SHOP DRAWINGS INDICATING ZONE FLOW AND HEAD LOCATION OF AFFECTED ZONES AND HOW THE CONTRACTOR INTENDS TO ADJUST THE EXISTING SYSTEM TO ACCOMMODATE NEW ZONES.
- PROVIDE TEMPORARY IRRIGATION TO ALL UNDISTURBED ZONES DURING CONSTRUCTION.

#### POINT OF CONNECTION NOTES

- CONTRACTOR SHALL VERIFY EXISTING STATIC PRESSURE AT THE METER AND SUBMIT WRITTEN VERIFICATION TO THE LANDSCAPE ARCHITECT. NOTIFY THE LANDSCAPE ARCHITECT OF DISCREPANCIES GREATER/LESS THAN 5 POUNDS OF DESIGN PRIOR TO INSTALLATION OF ANY IRRIGATION EQUIPMENT.
- POC NUMBER 02: 1-1/2" IRRIGATION METER.  
2.1. THE SYSTEM DESIGN IS BASED ON OPERATING 1 ZONE AT A TIME USING A NEW IRRIGATION METER ON A 1-1/2" SCH. 40 PVC SUPPLY LINE. CONTRACTOR SHALL FIELD VERIFY SIZE AND LOCATION.
- COORDINATE METER SCOPE OF WORK WITH ALL APPLICABLE TRADES. INSTALL METER PER LIBERTY LAKE SEWER AND WATER STANDARD PLAN NO. 7-15-E.
- IRRIGATION CONTRACTOR SHALL TIE INTO METER AND RUN PIPE TO BACKFLOW PREVENTER.
- NOTIFY THE OWNER IMMEDIATELY IF THE POINT OF CONNECTION ASSUMPTIONS MADE HERE DO NOT MATCH FIELD CONDITIONS.

#### CONTROLLER NOTES

- CONTROLLER C: INSTALL NEW PEDESTAL MOUNTED TWO-WIRE BASELINE CONTROLLER NEXT TO NEW POWER CABINET. CONFIRM LOCATIONS WITH OWNER PRIOR TO INSTALLATION.  
1.1. PROVIDE 120V FROM ELECTRICAL SERVICE PER LOCAL UTILITY REQUIREMENTS AND APPLICABLE CODES. SEE ELECTRICAL PLAN FOR MORE INFORMATION.  
1.2. PROVIDE COMMUNICATION CONNECTION FROM CONTROLLER TO FLOW METER AND MASTER VALVE.  
1.3. INSTALL CONTROLLER IN PEDESTAL PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE GROUNDING PER MANUFACTURER'S REQUIREMENTS.  
1.4. PROGRAM CONTROLLER WITH TEMPORARY ESTABLISHMENT AND PERMANENT WATERING SCHEDULE. COORDINATE WITH OWNER FOR CONNECTION TO CENTRAL CONTROL SERVER AND PROGRAMMING.
- CONTROL WIRE SHALL BE INSTALLED IN 2" SCH. 40 ELECTRICAL CONDUIT. PROVIDE SWEEPS OR JUNCTION BOXES AT CHANGES IN DIRECTION.
- INSTALL SPARE CONTROL WIRE (ORANGE COLOR) FROM CONTROLLER TO FARTHEST VALVE.

#### CRITICAL ANALYSIS

Generated: 2016-02-15 15:57

P.O.C. NUMBER: 03  
Water Source Information: LLSWD: Larry White

FLOW AVAILABLE  
Water Meter Size: 1-1/2"  
Flow Available: 54.38 gpm

PRESSURE AVAILABLE  
Static Pressure at POC: 70.00 psi  
Elevation Change: 5.00 ft  
Service Line Size: 1 1/2"  
Length of Service Line: 20.00 ft  
Pressure Available: 67.00 psi

DESIGN ANALYSIS  
Maximum Station Flow: 18.83 gpm  
Flow Available at POC: 54.38 gpm  
Residual Flow Available: 35.55 gpm

Critical Station: 18  
Design Pressure: 40.00 psi  
Elevation Loss: 0.00 psi  
Friction Loss: 0.49 psi  
Fittings Loss: 0.05 psi  
Loss through Valve: 5.54 psi  
Pressure Req. at Critical Station: 46.08 psi  
Loss for Fittings: 0.36 psi  
Loss for Main Line: 3.62 psi  
Loss for POC to Valve Elevation: 0.00 psi  
Loss for Backflow: 6.95 psi  
Loss for Master Valve: 1.06 psi  
Loss for Water Meter: 0.35 psi  
Critical Station Pressure at POC: 58.42 psi  
Pressure Available: 67.00 psi  
Residual Pressure Available: 8.58 psi

#### VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	PSI	PSI @ POC	GPM	PRECIP
1	RAIN BIRD PGA-PRS-D GLOBE	1"	TURF ROTARY	45.83	53.12	8.86	0.46 in/h
2	RAIN BIRD PGA-PRS-D GLOBE	1"	SHRUB ROTARY	45.20	51.03	5.73	0.44 in/h
3	RAIN BIRD PGA-PRS-D GLOBE	1"	TURF ROTARY	45.78	52.18	6.50	0.40 in/h
4	RAIN BIRD PGA-PRS-D GLOBE	1"	SHRUB ROTARY	46.09	55.04	10.77	0.51 in/h
5	RAIN BIRD PGA-PRS-D GLOBE	1"	TURF ROTARY	45.21	51.43	6.04	0.56 in/h
6	RAIN BIRD PGA-PRS-D GLOBE	1"	SHRUB ROTARY	45.49	52.21	7.79	0.59 in/h
7	RAIN BIRD PGA-PRS-D GLOBE	1"	TURF ROTARY	45.50	51.54	6.30	0.37 in/h
8	RAIN BIRD PGA-PRS-D GLOBE	1"	SHRUB ROTARY	44.71	50.08	3.13	0.35 in/h
9	RAIN BIRD PGA-PRS-D GLOBE	1"	SHRUB ROTARY	45.52	53.15	8.62	0.41 in/h
10	RAIN BIRD PGA-PRS-D GLOBE	1-1/2"	TURF ROTARY	41.99	52.56	14.68	0.38 in/h
11	RAIN BIRD PGA-PRS-D GLOBE	1"	SHRUB ROTARY	45.40	52.04	6.75	0.40 in/h
12	RAIN BIRD PGA-PRS-D GLOBE	1-1/2"	TURF ROTARY	42.16	55.95	18.83	0.42 in/h
13	RAIN BIRD PGA-PRS-D GLOBE	1-1/2"	TURF ROTARY	41.90	56.90	17.60	0.39 in/h
14	RAIN BIRD PGA-PRS-D GLOBE	1"	TURF ROTARY	45.33	52.13	6.92	0.50 in/h
15	RAIN BIRD PGA-PRS-D GLOBE	1"	SHRUB ROTARY	44.82	50.37	3.69	0.33 in/h
16	RAIN BIRD PGA-PRS-D GLOBE	1"	SHRUB ROTARY	45.20	51.32	5.40	0.36 in/h
17	RAIN BIRD PGA-PRS-D GLOBE	1"	SHRUB ROTARY	45.64	51.80	5.41	0.40 in/h
18	RAIN BIRD PGA-PRS-D GLOBE	1"	TURF ROTARY	46.07	58.42	13.63	0.32 in/h
19	RAIN BIRD PGA-PRS-D GLOBE	1-1/2"	TURF ROTARY	42.14	57.37	15.53	0.41 in/h

#### WATERING SCHEDULE

NUMBER	MODEL	TYPE	PRECIP	IN/WEEK	MIN/WEEK	GAL/WEEK	GAL/DAY
1	RAIN BIRD PGA-PRS-D GLOBE	TURF ROTARY	0.46 in/h	1.50	197	1,745	
2	RAIN BIRD PGA-PRS-D GLOBE	SHRUB ROTARY	0.44 in/h	1.25	170	973.6	
3	RAIN BIRD PGA-PRS-D GLOBE	TURF ROTARY	0.40 in/h	1.50	226	1,469	
4	RAIN BIRD PGA-PRS-D GLOBE	SHRUB ROTARY	0.51 in/h	1.25	148	1,594	
5	RAIN BIRD PGA-PRS-D GLOBE	TURF ROTARY	0.56 in/h	1.50	160	966	
6	RAIN BIRD PGA-PRS-D GLOBE	SHRUB ROTARY	0.59 in/h	1.25	127	989.5	
7	RAIN BIRD PGA-PRS-D GLOBE	TURF ROTARY	0.37 in/h	1.50	245	1,542	
8	RAIN BIRD PGA-PRS-D GLOBE	SHRUB ROTARY	0.35 in/h	1.25	214	670.1	
9	RAIN BIRD PGA-PRS-D GLOBE	SHRUB ROTARY	0.41 in/h	1.25	185	1,595	
10	RAIN BIRD PGA-PRS-D GLOBE	TURF ROTARY	0.38 in/h	1.50	237	3,480	
11	RAIN BIRD PGA-PRS-D GLOBE	SHRUB ROTARY	0.40 in/h	1.25	187	1,261	
12	RAIN BIRD PGA-PRS-D GLOBE	TURF ROTARY	0.42 in/h	1.50	214	4,030	
13	RAIN BIRD PGA-PRS-D GLOBE	TURF ROTARY	0.39 in/h	1.50	233	4,100	
14	RAIN BIRD PGA-PRS-D GLOBE	TURF ROTARY	0.50 in/h	1.50	181	1,253	
15	RAIN BIRD PGA-PRS-D GLOBE	SHRUB ROTARY	0.33 in/h	1.25	225	829.7	
16	RAIN BIRD PGA-PRS-D GLOBE	SHRUB ROTARY	0.36 in/h	1.25	210	1,134	
17	RAIN BIRD PGA-PRS-D GLOBE	SHRUB ROTARY	0.40 in/h	1.25	187	1,011	
18	RAIN BIRD PGA-PRS-D GLOBE	TURF ROTARY	0.32 in/h	1.50	278	3,790	
19	RAIN BIRD PGA-PRS-D GLOBE	TURF ROTARY	0.41 in/h	1.50	220	3,417	
TOTALS:					3,844	35,851	

#### GENERAL IRRIGATION NOTES

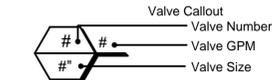
- ALL IRRIGATION WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND MUNICIPAL CONSTRUCTION AS REVISED OR SUPPLEMENTED BY THE SPECIAL PROVISIONS FOR THIS PROJECT.
- NO SUBSTITUTIONS OF EQUIPMENT OR DESIGN CHANGES SHALL BE PERMITTED UNLESS APPROVED BY THE OWNER.
- IRRIGATION LINES AND VALVES MAY BE SHOWN IN HARD SURFACE AREAS OR OUTSIDE LANDSCAPE AREAS FOR GRAPHIC CLARITY. LOCATE ALL IRRIGATION LINES IN LANDSCAPE AREAS OR IN SLEEVES UNDER PAVEMENT.
- IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF IRRIGATION CONDUIT AND SLEEVES UNDER HARD SURFACES WITH RESPECTIVE CONTRACTORS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, TESTS, AND INSPECTIONS REQUIRED FOR THE IRRIGATION SYSTEM.
- CALL FOR LOCATES PRIOR TO DIGGING AT 811. CONTRACTOR IS RESPONSIBLE TO VERIFY UTILITY LOCATIONS. IF UTILITIES ARE DAMAGED IN THE COURSE OF WORK, CONTRACTOR SHALL INFORM THE OWNER AND MAKE ANY REPAIRS REQUIRED, AT NO COST TO THE OWNER.
- ALL SLEEVING SHALL BE MARKED, SEALED AND STAKED. ALL SLEEVES SHALL BE TWICE THE SIZE OF THE LINE OR COMBINED LINES. MINIMUM SLEEVE SIZE SHALL BE 4-INCHES IF LOCATED UNDER ROADWAY OR DRIVE AISLE.
- COORDINATE SLEEVING LOCATIONS WITH ELECTRICAL CONDUIT.
- INSTALL CONCRETE THRUST BLOCKS ON MAINLINE 2-1/2" AND LARGER, FOR ALL CHANGES IN PIPE DIRECTION OVER 15-DEGREES.
- SPLICE CONTROL WIRES WITHIN VALVE BOXES ONLY, USING 3M-DBY, OR APPROVED SPLICE KITS, AND PROVIDE A 24" EXPANSION LOOP FOR ALL CONTROL WIRES WITHIN EACH VALVE BOX.
- VALVE BOXES SHALL BE COMMERCIAL-GRADE POLYETHYLENE OR HDPE AND SUITABLE FOR LIGHT DUTY APPLICATIONS.
- INSTALLER TO ADJUST ALL ZONE CONTROL VALVES TO THE CORRECT OPERATING PRESSURE. SEE VALVE SCHEDULE FOR OPERATING PSI.
- VERIFY AT LEAST A 15PSI DIFFERENCE BETWEEN PRS DEVICES. IF PRESSURE DIFFERENCES IS LESS THAN 15PSI, NOTIFY L.A. IMMEDIATELY.
- CONTRACTOR SHALL HAND TRENCH IRRIGATION DITCHES WHEN WITHIN 20 FEET, OR WITHIN A DELINEATED ROOT PROTECTION ZONE, OF EXISTING TREES TO REMAIN. AVOID CUTTING ANY ROOTS OVER 3" - 4" IN DIAMETER WITHIN THE ROOT PROTECTION ZONE.
- INSTALLER SHALL BE RESPONSIBLE FOR KEEPING EXACT ACCURATE NOTES AND "AS-BUILTS" FOR THE CREATION OF THE "RECORD DRAWINGS" OF THE INSTALLED SYSTEM.
- CONTRACTOR SHALL PROVIDE IRRIGATION MAINTENANCE THROUGH THE PLANT ESTABLISHMENT PERIOD INCLUDING WINTERIZATION(S) AND SPRING START-UP(S).

#### IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
	HUNTER MP1000 PROS-04-PRS40-CV TURF ROTATOR, 4" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY.	40
	HUNTER MP2000 PROS-04-PRS40-CV TURF ROTATOR, 4" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY.	40
	HUNTER MP3000 PROS-04-PRS40-CV TURF ROTATOR, 4" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY.	40
	HUNTER MP STRIP PROS-04-PRS40-CV TURF ROTATOR, 4" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY.	40
	HUNTER MP1000 PROS-12-PRS40-CV SHRUB ROTATOR, 12" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY.	40
	HUNTER MP2000 PROS-12-PRS40-CV SHRUB ROTATOR, 12" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY.	40

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD PGA-PRS-D GLOBE 1" AND 1-1/2" ELECTRIC REMOTE CONTROL VALVE WITH PRESSURE REGULATOR MODULE.
	RAIN BIRD 44-LRC 1" BRASS QUICK-COUPLING VALVE, WITH LOCKING THERMOPLASTIC RUBBER COVER AND 2-PIECE BODY.
	BRASS GATE VALVE BRASS GATE VALVE, SAME SIZE AS MAINLINE PIPE.
	RAIN BIRD EFB-CP-PRS-D 1" BRASS MASTER VALVE
	3/4" BRASS MANUAL DRAIN VALVE SLOPE MAINLINE TO DRAIN VALVES.
	FEBCO 850 1" DOUBLE CHECK BACKFLOW PREVENTION
	BASELINE BL-3200P TWO-WIRE CONTROLLER IN 16-GAUGE STAINLESS-STEEL PEDESTAL ENCLOSURE, EXPANDABLE UP TO 200 STATIONS.
	BASELINE BL-XP PEDESTAL BASE FOR X AND XS ENCLOSURES.
	BASELINE BL-CM-P CELL MODULE FOR BL-3200 CONTROLLER IN STAINLESS-STEEL PEDESTAL ENCLOSURE, WITH ONE YEAR DATA SERVICE INCLUDED.
	BASELINE BL-PFS150 BASELINE 1.5" PVC FLOW SENSOR WITH INTEGRATED FLOW DECODER
	WATER METER 1-1/2" LLSWD: LARRY WHITE

—————	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 PVC SCHEDULE 40 IRRIGATION PIPE.
—————	IRRIGATION MAINLINE: HDPE PE4710 DR 11 (200PSI) HIGH-DENSITY POLYETHYLENE IRRIGATION PIPE, HEAT FUSION INSTALLATION AS PER MANUFACTURER'S RECOMMENDATION.
-----	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL.



#### Project Title:

## LIBERTY LAKE 2016 STREET PROJECTS

#### Client:

### CITY OF LIBERTY LAKE

22710 E. COUNTRY VISTA DRIVE  
LIBERTY LAKE, WASHINGTON 99019  
(509) 755-6700  
ANDREW STAPLES, PE

Job No. 2150417.40

#### Issue Set & Date:

## 95% SUBMITTAL

2/18/16



STATE OF WASHINGTON  
LICENSED  
LANDSCAPE ARCHITECT  
CRAIG D. ANDERSEN  
LICENSE NO. 1005  
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#### Sheet Title:

## IRRIGATION SCHED & NOTES

Designed by: CDA Drawn by: CDA Checked by: EMF/JM

Sheet No.

# L2.3



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# LIBERTY LAKE 2016 STREET PROJECTS

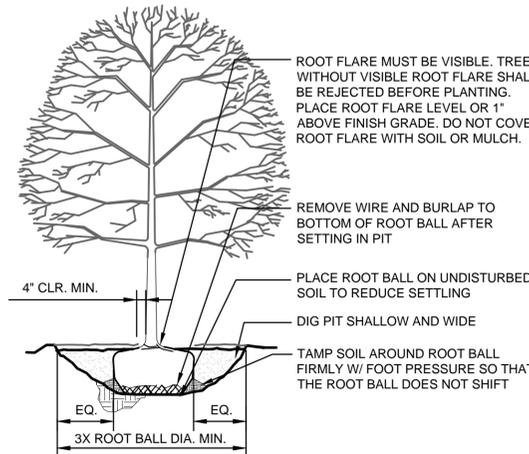
## SEC. 10, 11, 14 & 15 T26N, R42E, W.M.

### CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON.

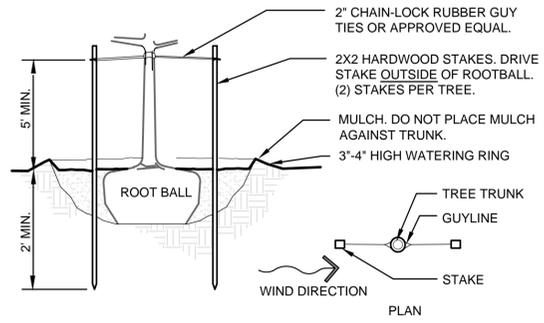


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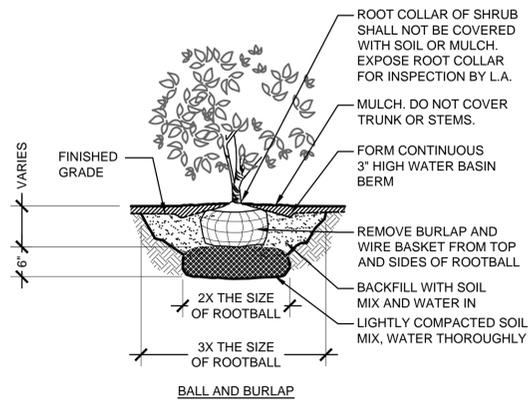


**1 TREE PLANTING**  
NTS P-2015-0417-10

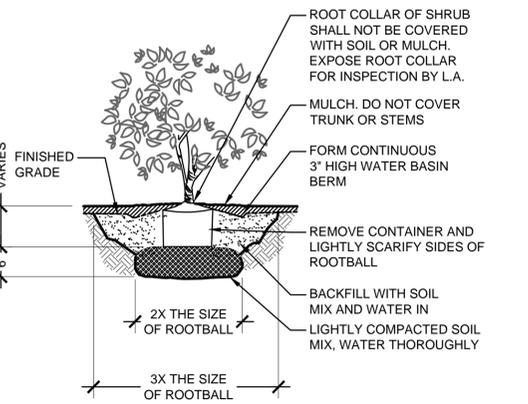


NOTES:  
1. ALIGN STAKES PERPENDICULAR OR PARALLEL TO CURB & SIDEWALK, WHICHEVER IS CLOSER TO WIND DIRECTION.  
2. SEE PLANTING NOTES & SPECIFICATIONS (IF PROVIDED) FOR MORE INFORMATION

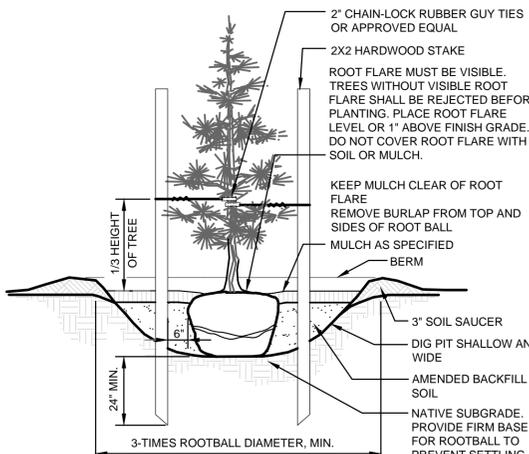
**2 TREE STAKING**  
NTS P-2015-0417-11



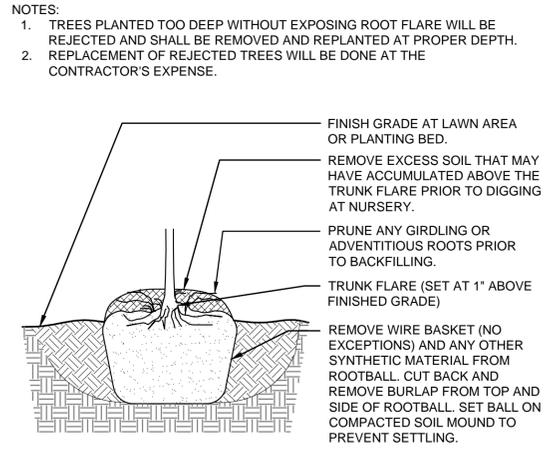
**3 SHRUB PLANTING**  
NTS P-2015-0417-16



**CONTAINER**



**4 CONIFER PLANTING**  
NTS P-2015-0417-12



**5 ROOTBALL**  
NTS P-2015-0417-71

Project Title:  
**LIBERTY LAKE 2016 STREET PROJECTS**

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**PLANTING DETAILS**

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Sheet No.

**L3.1**



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Project Title:

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2016 STREET  
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Client:

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22710 E. COUNTRY VISTA DRIVE  
LIBERTY LAKE, WASHINGTON 99019  
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Job No.

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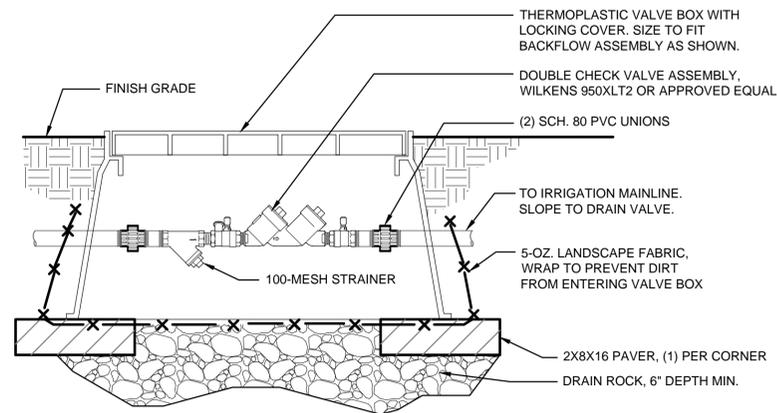
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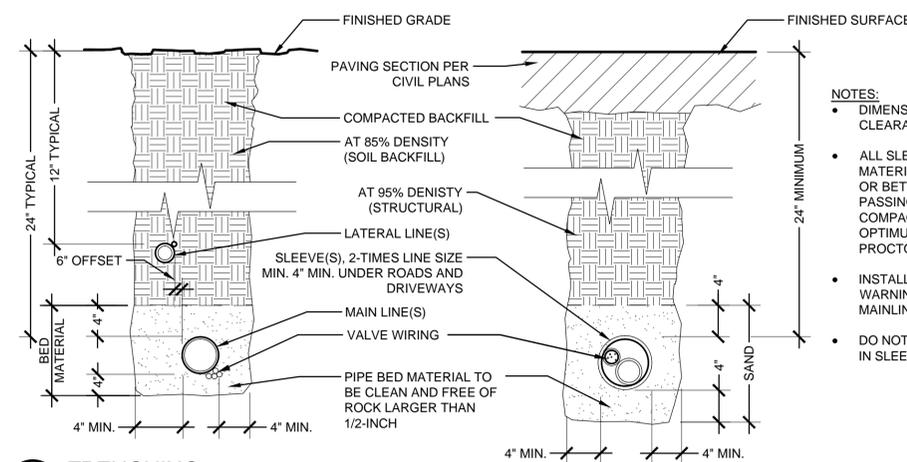


- NOTES:
1. ALL INSTALLATIONS SHALL COMPLY WITH THE ASSEMBLY MANUFACTURER'S RECOMMENDATIONS.
  2. ALL INSTALLATIONS SHALL COMPLY WITH THE USC FCCCHR ASSEMBLY APPROVAL, AND THE MOST RECENT ADDITION OF THE PNWS-AWWA 'CROSS CONNECTION CONTROL MANUAL', WHICHEVER IS MORE STRINGENT.
  3. INSTALL DCVA WITH TEST COCKS POINTED UPWARD. COVER TEST COCKS WITH PLASTIC PLUGS.

**1** DOUBLE CHECK ASSEMBLY INSTALLATION

NTS

P-2015-0417-09

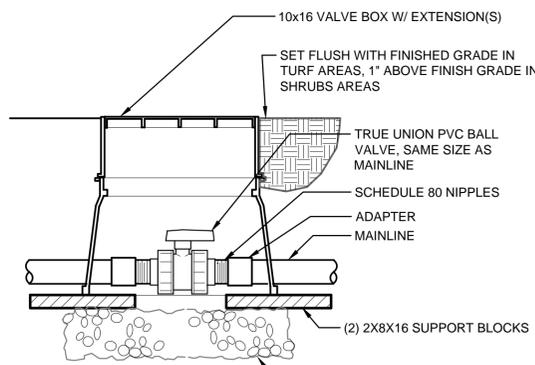


- NOTES:
- DIMENSIONS ARE MINIMUM CLEARANCES.
  - ALL SLEEVING TRENCH BACKFILL MATERIAL SHALL BE CLASS "B" OR BETTER (MAX. OF 10% PASSING NO.40 SCREEN) AND BE COMPACTED TO MIN. 95% OPTIMUM DENSITY (MODIFIED PROCTOR).
  - INSTALL METALLIC DETECTABLE WARNING TAPE 6" ABOVE ALL MAINLINE.
  - DO NOT TAPE OR BUNDLE WIRES IN SLEEVES.

**2** TRENCHING

NTS

P-2015-0417-17

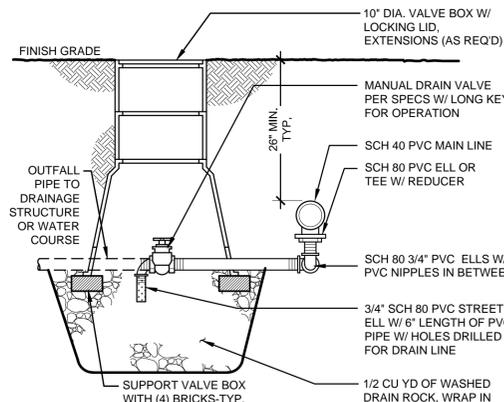


USE TEFLON TAPE ON ALL THREADED CONNECTIONS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

**3** BALL VALVE

NTS

P-2015-0417-05

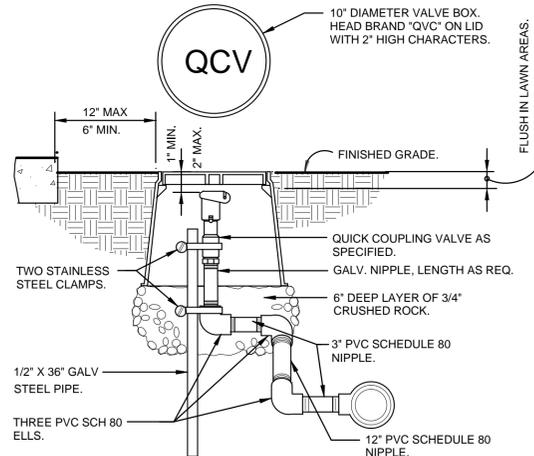


NOTE: USE TEFLON TAPE ON ALL THREADED FITTINGS.

**4** MANUAL DRAIN VALVE

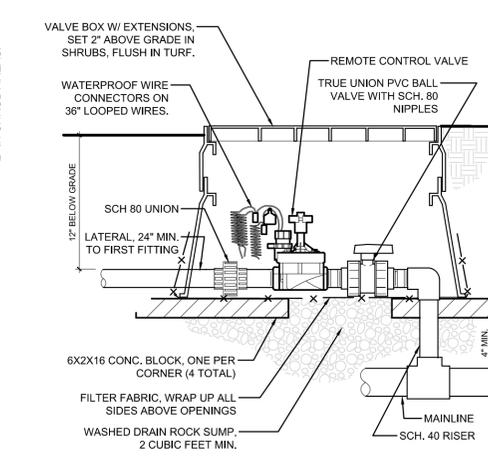
1" = 1'-0"

P-2015-0417-23



**5** QUICK COUPLER IN VALVE BOX

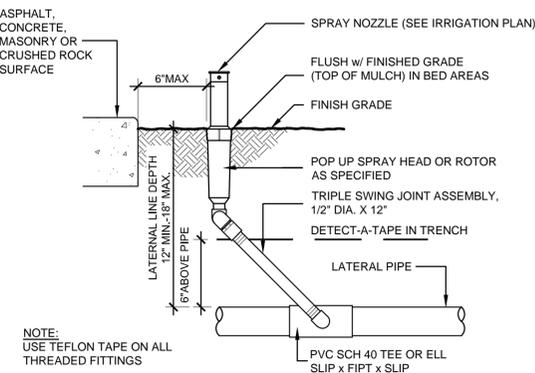
1 1/2" = 1'-0"



**6** REMOTE CONTROL VALVES

NTS

P-2015-0417-78

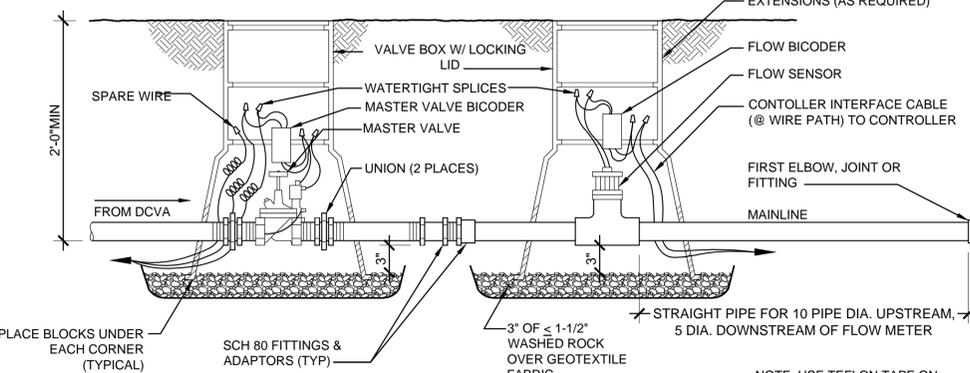


NOTE: USE TEFLON TAPE ON ALL THREADED FITTINGS

**7** POP-UP SPRAY HEAD

1/8" = 1'-0"

P-2015-0417-40

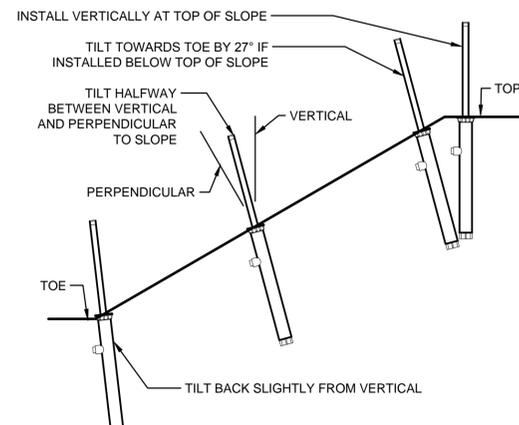


NOTE: USE TEFLON TAPE ON ALL THREADED FITTINGS.

**8** MASTER VALVE AND FLOW SENSOR

1" = 10'

P-2015-0417-07



**9** SPRAY HEAD ON SLOPE

1" = 1'-0"

P-2015-0417-18

Revisions:


Sheet Title:

**IRRIGATION DETAILS**

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Sheet No.

**L3.2**



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Project Title:  
**LIBERTY LAKE  
2016 STREET  
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Client:  
**CITY OF LIBERTY LAKE**

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ANDREW STAPLES, PE

Job No.  
2150417.40

Issue Set & Date:  
**95% SUBMITTAL**

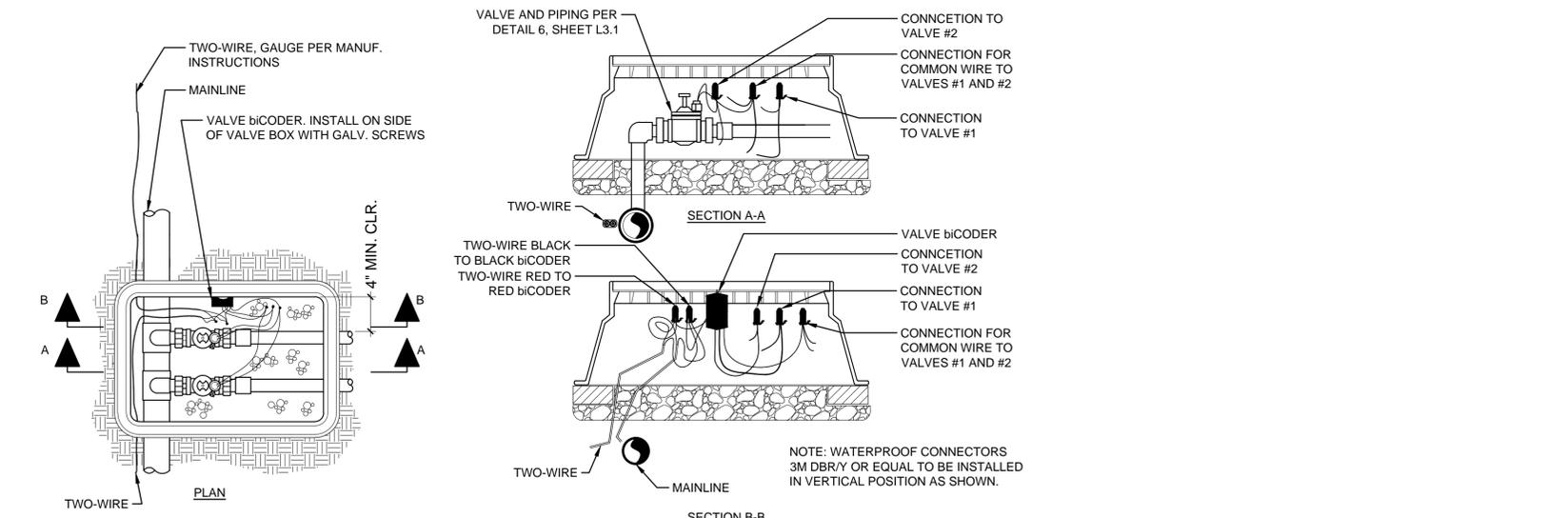
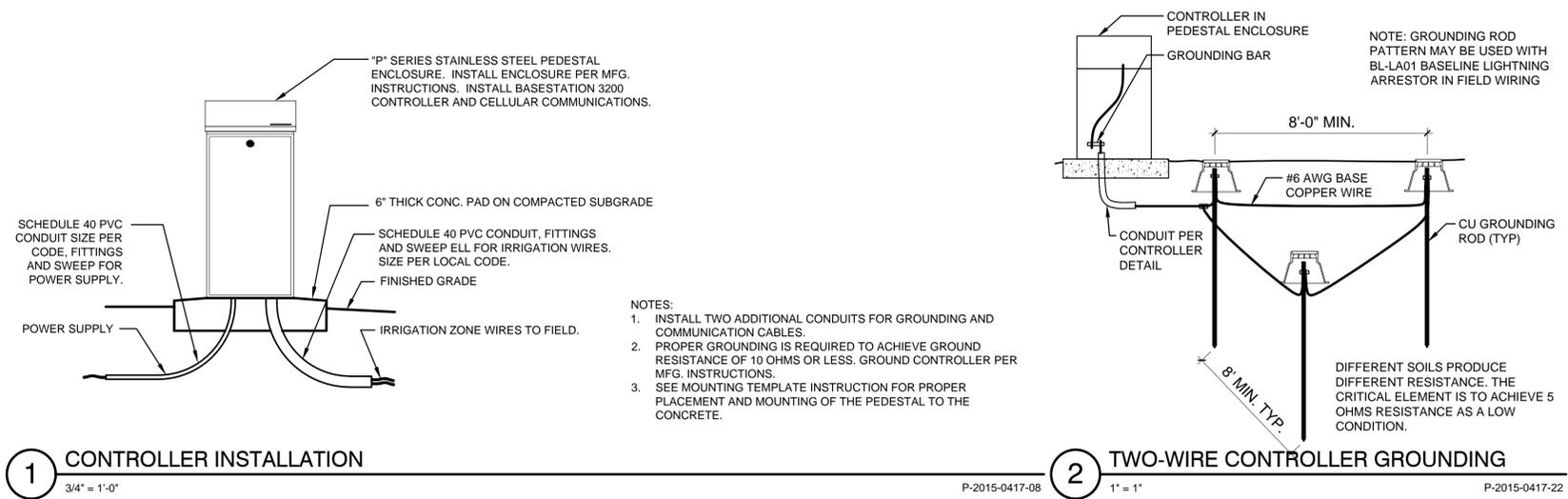
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**IRRIGATION DETAILS**

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**L3.3**



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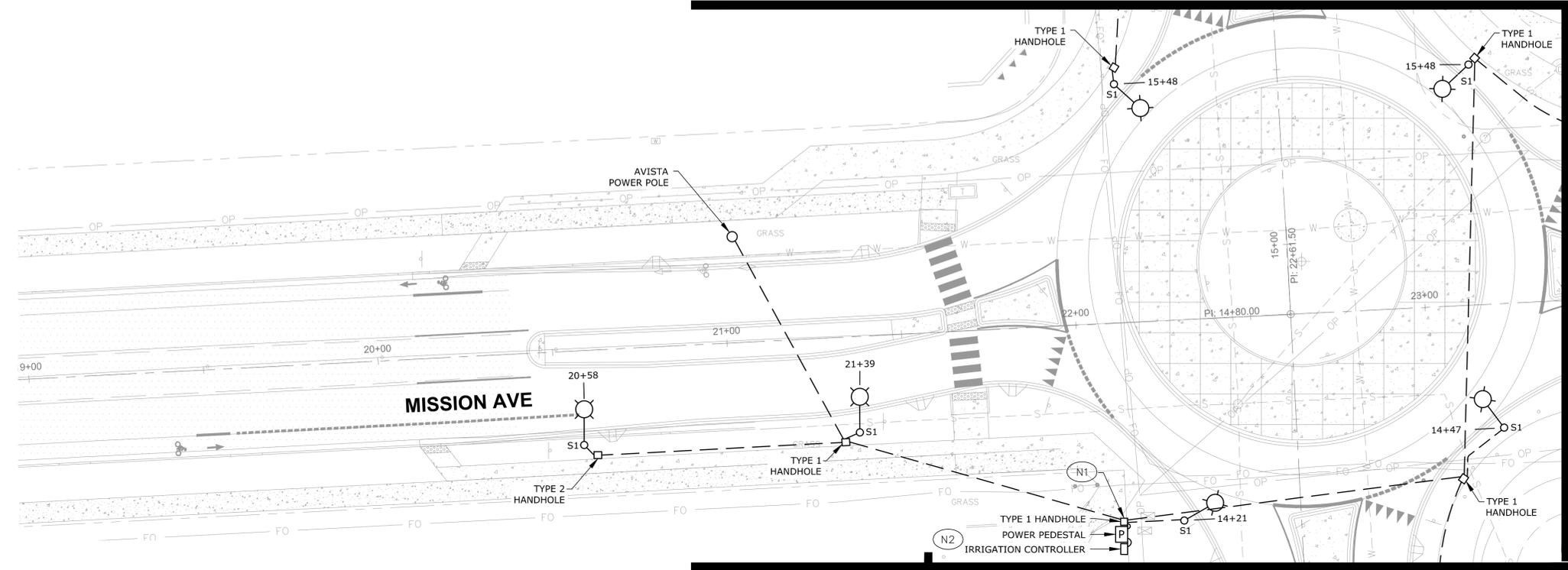

Sheet Title:  
**MISSION AND MOLTER  
ROUNDABOUT -  
MISSION LEG**

Designed by: WJB Drawn by: TJB Checked by: WJB

Sheet No.

**E1.1**

MATCHLINE TO NORTH MOLTER SHEET E1.2



MATCHLINE TO EAST MISSION

### GENERAL NOTES:

1. ALL STREET AND PEDESTRIAN LIGHTING PROVIDED THROUGH THE AVISTA STREET LIGHTING PROGRAM. AVISTA TO PROVIDE POLE BASES AND HANDHOLES. CONTRACTOR TO PROVIDE TRENCHING/BACKFILL AND CONDUITS, AND INSTALL THE POLE BASES AND HANDHOLES PER AVISTA STANDARDS. AVISTA TO PROVIDE AND INSTALL CONDUCTORS, POLES, AND LUMINAIRES (WITH PHOTOCCELL CONTROL).

### KEY NOTES:

- (N1) CONTRACTOR TO PROVIDE AND INSTALL ALL TRENCHING/BACKFILL, CONDUIT, WIRE, AND POWER PEDESTAL AS SHOWN. COORDINATE WITH OTHERS FOR FINAL LOCATION OF EQUIPMENT. CONTRACTOR TO PROVIDE CIRCUIT, BUT ALL IRRIGATION CONTROLLERS, AND WIRING PROVIDED AND INSTALLED BY OTHERS. PROVIDE 20A CIRCUIT BREAKER FOR IRRIGATION CONTROLLER.
- (N2) SEE IRRIGATION PLANS FOR DETAILS AND FINAL LOCATION OF IRRIGATION CONTROLLER.

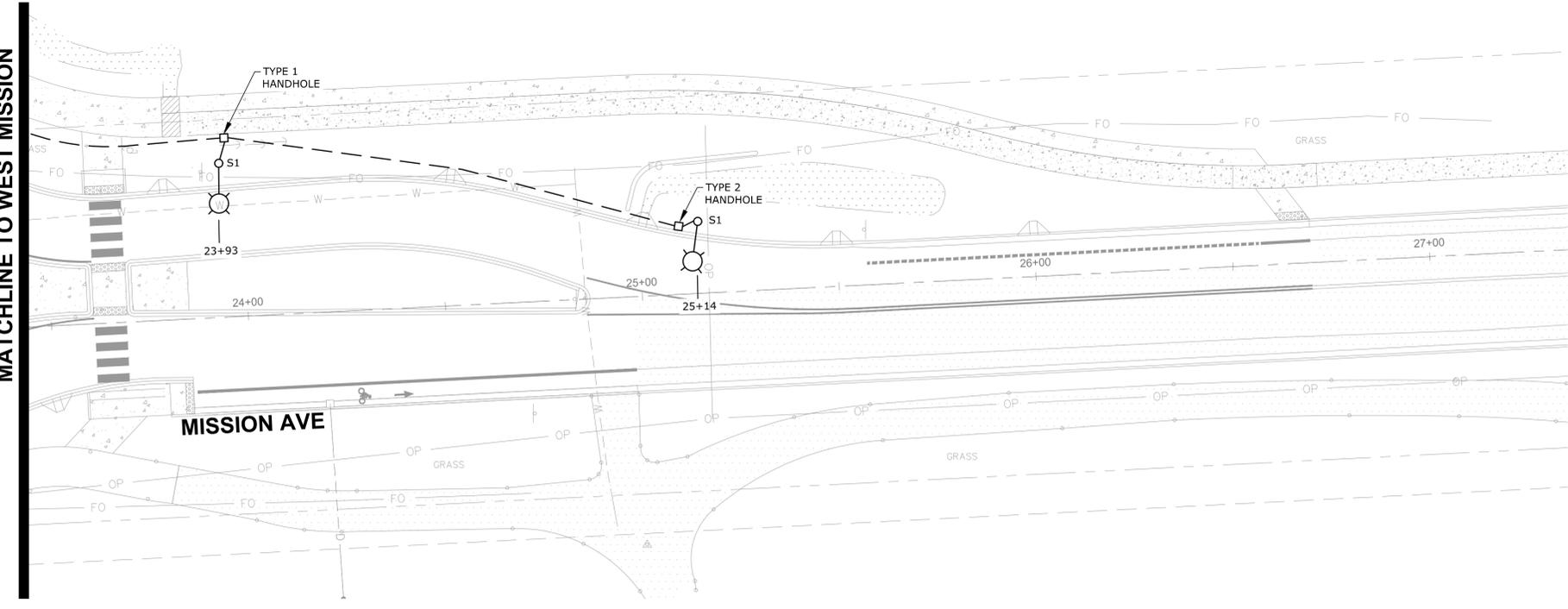
MATCHLINE TO SOUTH MOLTER SHEET E1.2

WEST MISSION PLAN

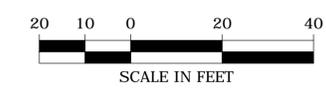
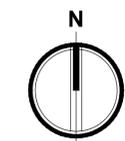
### LEGEND

- AVISTA CONDUIT - 2" SCHEDULE 40, GRAY (PER AVISTA HANDBOOK)
- TYPE 1 - ELECTRICAL HANDHOLE - AVISTA SPEC. 5710.010
- TYPE 2 - STREET LIGHTING HANDHOLE - AVISTA SPEC. 5710.020
- [P] PEDESTALS (SEE SHEET E6.1)
- TYPE S1  
'X' INDICATES: E = EXISTING  
R = REMOVE

MATCHLINE TO WEST MISSION



EAST MISSION PLAN





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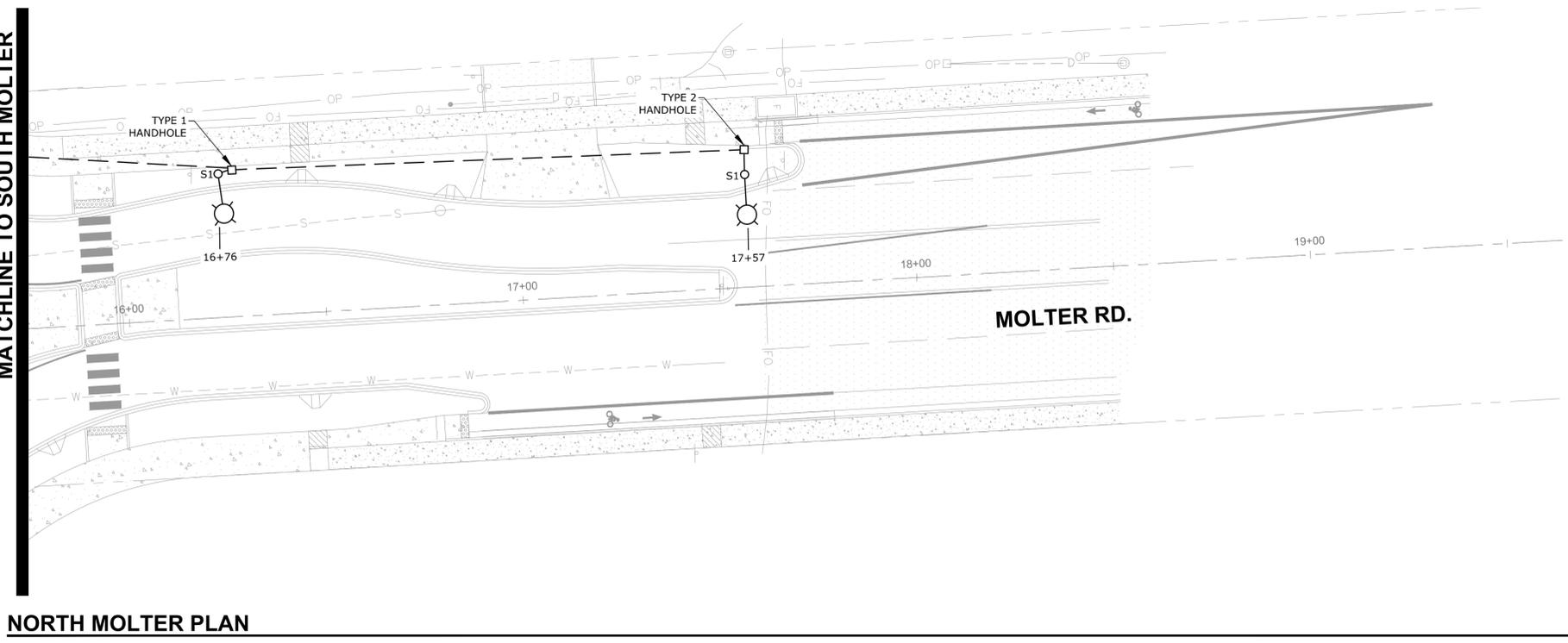
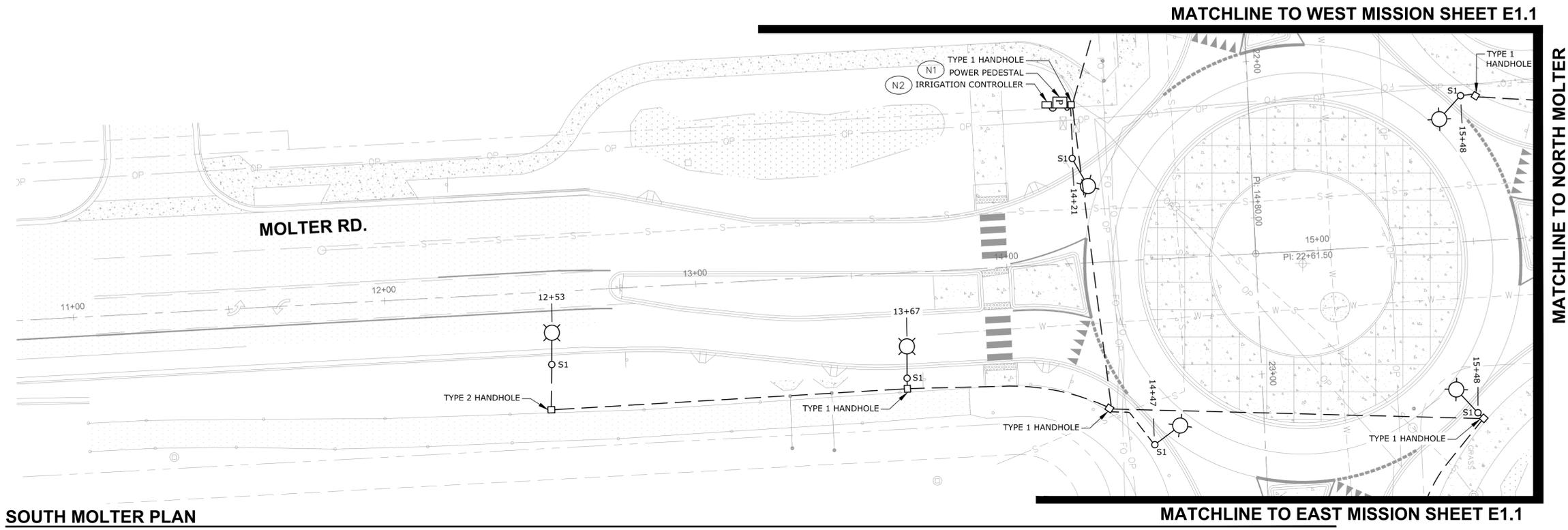
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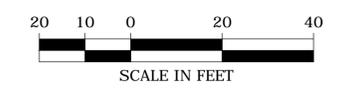
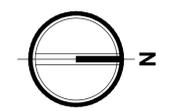
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Revisions:


Sheet Title:  
**MISSION AND MOLTER  
ROUNDABOUT -  
MISSION LEG**

Designed by: WJB    Drawn by: TJB    Checked by: WJB

Sheet No.

# E1.2

